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     (FILE 'HOME' ENTERED AT 14:24:42 ON 06 AUG 2001)

     FILE 'HCAPLUS' ENTERED AT 14:24:48 ON 06 AUG 2001
L1            73 S ICT
L2         45372 S IMMUNOASSAY? OR IMMUNOCHEMICAL ANALYSI?
L3           191 S IMMUNOCHROMATOG? (L) (ASSAY? OR IMMUNOASSAY?)
L4        114196 S L2 OR ASSAY?
L5           264 S L1  OR L3
L6        101952 S ( H OR HAEMOPHILUS)
L7          4047 S ( H OR HAEMOPHILUS)  (2W) INFLUEN?
L8             1 S L7 AND L5
L9        151595 S ANTIBOD?
L10       181950 S ANTIGEN?
L11        33182 S L9 (L) L10
L12           94 S L11 AND L7
L13           14 S L12 AND L4
L14         6647 S L4 (L) APP?
L15            4 S L13 AND L14
L16          349 S (IMMUNOCHROMAT?)/AB
L17            0 S L16 AND L7
L18          399 S L3 OR L16
L19           77 S L18 AND L9 AND L10
L20        99775 S CARBOHYDRAT?
L21        43853 S POLYSACCHARID?
L22       139446 S L20 OR L21
L23         4400 S L22 (L) L10
L24            5 S L23 AND L19
L25        29421 S STRIP#
L26            0 S L12 AND L25
L27            0 S L7 AND L4 AND L25
L28            2 S L7 AND L4 AND STRIP?/AB
L29            7 SS L8 OR L15 OR L28

     FILE 'REGISTRY' ENTERED AT 14:34:33 ON 06 AUG 2001
                E GOLD/CN
L30            1 S E3

     FILE 'HCAPLUS' ENTERED AT 14:34:40 ON 06 AUG 2001
L31       142553 S L30 OR GOLD OR AU
L32         1159 S L31 AND L4
L33            0 S L32 AND L7
L34           26 S L31 AND L3

     FILE 'STNGUIDE' ENTERED AT 14:35:57 ON 06 AUG 2001

     FILE 'HCAPLUS' ENTERED AT 14:42:01 ON 06 AUG 2001
L35            0 S L34 AND L7
L36            2 S L34 AND L23
L37            9 S L29 OR L36

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L37  ANSWER 1 OF 9  HCAPLUS  COPYRIGHT 2001 ACS
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ACCESSION NUMBER: 2000:209941 HCAPLUS
DOCUMENT NUMBER: 132:233987
TITLE: Process and materials for the rapid detection of Streptococcus pneumoniae employing purified antigen-specific antibodies
INVENTOR(S): Moore, Norman James; Fent, Mary Kathleen; Koulchin, Vladimir Andrei; Molokova, Elena Valentin
PATENT ASSIGNEE(S): Binax, Inc., USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000016803	A1	20000330	WO 1999-US21505	19990920
W: AT, AU, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, IL, IN, JP, KR, LU, MX, NO, NZ, PL, PT, RU, SE, SK, UA, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9961513	A1	20000410	AU 1999-61513	19990920
EP 1113817	A1	20010711	EP 1999-948305	19990920
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.:
US 1998-156486 A 19980918
US 1999-397110 A 19990916
WO 1999-US21505 W 19990920

AB A process is disclosed for obtaining a C-polysaccharide cell wall antigen contg. not more than about 10% protein from Streptococcus pneumoniae bacteria. The antigen thus obtained is conjugated to a spacer mol., and the free end of the latter is then conjugated to a chromatog. affinity column. The column is then utilized to purify raw antibodies to S. pneumoniae bacteria, thereby producing antigen-specific antibodies. A portion of such antibodies is conjugated to a labeling agent which displays a visible color change upon reaction of the antibodies with their antigenic binding partner and embedded in a first zone of an immunochromatog. assay device. Another portion of such antibodies is bound to the reaction zone of the device which has a view window. When a liq. sample, such as patient urine, cerebrospinal fluid or blood is applied to the first zone, the conjugate of antibodies and labeling agent and the sample move along a flow strip of bibulous material to the reaction zone wherein, if the sample contains S. pneumoniae or its cell wall antigen, a sandwich is formed among the labeled conjugate, the antigen and the bound antibodies and a color change is obsd. The immunochromatog. assay thus performed is completed within about 15 min. This assay affords a basis for rapid and reliable diagnosis of various pathogenic states caused by S. pneumoniae including pneumonia, bronchitis, otitis media, sinusitis, meningitis, and secondary disease states that commonly occur when primary pneumonic infection caused by this bacterium persists undiminished over a time period of 3-5 days.

IC ICM A61K039-385
ICS A61K039-085
CC 9-10 (Biochemical Methods)

IT **Immunoassay**
(app., **Immunochromatog. assay** device; process and materials for rapid detection of Streptococcus pneumoniae employing purified antigen-specific antibodies)
IT **Polysaccharides**, analysis
Proteins, general, analysis
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(process and materials for rapid detection of Streptococcus pneumoniae employing purified **antigen**-specific antibodies)
IT **Carbohydrates**, preparation
RL: ARG (Analytical reagent use); PUR (Purification or recovery); ANST (Analytical study); PREP (Preparation); USES (Uses)
(process and materials for rapid detection of Streptococcus pneumoniae employing purified **antigen**-specific antibodies)
IT 302-01-2, Hydrazine, uses **7440-57-5, Gold**, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(process and materials for rapid detection of Streptococcus pneumoniae employing purified antigen-specific antibodies)

REFERENCE COUNT: 11
REFERENCE(S):
(1) Bennett; The Journal of Immunology 1979, V122(6), P2356 HCAPLUS
(2) Fischer; European Journal of Biochemistry 1993, P851 HCAPLUS
(4) Jennings; Biochemistry 1980, V19(20), P4712 HCAPLUS
(5) Lees; US 5849301 A 1998 HCAPLUS
(6) Marburg; US 4830852 A 1989 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:494700 HCAPLUS
DOCUMENT NUMBER: 125:162734
TITLE: Methods for detection of an analyte
INVENTOR(S): Bogart, Gregory R.; Moddel, Garret R.; Maul, Diana M.;
Etter, Jeffrey B.; Crosby, Mark
PATENT ASSIGNEE(S): Biostar, Inc., USA
SOURCE: U.S., 71 pp. Cont.-in-part of U.S. Ser. No. 924343,abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5541057	A	19960730	US 1993-75952	19930610
AU 9179004	A1	19921021	AU 1991-79004	19910320
AU 653940	B2	19941020		
EP 539383	A1	19930505	EP 1991-910056	19910320
EP 539383	B1	19960918		
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 05506936	T2	19931007	JP 1991-509344	19910320
ES 2094224	T3	19970116	ES 1991-910056	19910320
US 5639671	A	19970617	US 1995-412600	19950328

US 5629214	A	19970513	US 1995-456040	19950531
US 5869272	A	19990209	US 1995-455652	19950531
JP 10288616	A2	19981027	JP 1998-5911	19980114
JP 2951300	B2	19990920		

PRIORITY APPLN. INFO.:

US 1989-408291	B2	19890918
US 1992-873097	B2	19920424
US 1992-924343	B2	19920731
JP 1990-513789	A3	19900918
EP 1991-910056	A	19910320
WO 1991-US1781	A	19910320
US 1992-923048	B2	19920731
US 1993-75952	A3	19930610
US 1993-76319	B1	19930610

AB This invention relates to devices that produce a detectable attenuation of the spectral characteristic of light impinging on the devices by thin-film phenomena. Interference phenomena are central to the devices and methods of the invention. The presence or amt. of an analyte of interest (e.g., rheumatoid factor, viral antigens, Streptococcus Group A antigen, allergens, HIV I or II, etc.) in a sample (e.g., blood, urine, spinal fluid, gastric wash, vaginal secretions, etc.) is found by using a substrate having an optically active surface exhibiting a first color in response to light impinging thereon and exhibiting a second color comprising a combination of wavelengths of light different from the first color or comprising an intensity of at least one wavelength of light different from the first color in response to the light when the analyte is present on the surface. Then the optically active surface is contacted with a sample potentially comprising the analyte of interest under conditions in which the analyte can interact with the optically active surface to cause the optically active surface to exhibit the second color when the analyte is present. The devices permit detection of extremely small quantities of analyte in a sample, in amts. as low as 0.1 nM, 0.1 ng/mL, 50 fg, or 2 .times. 103 organisms in a rapid assay that lasts only a few minutes.

IC ICM C12Q001-70
ICS G01N033-53; G01N033-543; G01N021-00
NCL 435005000
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 3, 7, 15, 73
ST optically active surface app biochem analysis; interference film optical app biochem analysis; thin film analyzer body fluid; bacteria detection body fluid app; virus detection body fluid app; **antigen** detection body fluid app; **antibody** detection body fluid app
IT Bacteria
Blood analysis
Body fluid
Cerebrospinal fluid
Chlamydia
Ellipsometers
Escherichia coli
Feces
Films
Immunoassay
Infrared radiation
Interference

Latex
Light
Neisseria meningitidis
Optical detectors
Pericardium
Peritoneum
Pharynx
Pleura
Reflectometers
Respiratory tract
Saliva
Sputum
Stomach
Streptococcus pneumoniae
Ultraviolet radiation
Urine analysis
(**app.** and methods for anal. using thin-film phenomena)

IT **Haemophilus influenzae**
(type b, app. and methods for anal. using thin-film phenomena)

L37 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:191556 HCAPLUS
DOCUMENT NUMBER: 124:337288
TITLE: Devices and methods for detection of an analyte based upon light interference
INVENTOR(S): Sandstrom, Torbjorn; Stiblert, Lars; Maul; Diana M.
PATENT ASSIGNEE(S): Biostar, Inc., USA
SOURCE: U.S., 69 pp., Cont.-in-part of U. S. Ser. No. 923,268,
abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5494829	A	19960227	US 1993-75128	19930610
US 5631171	A	19970520	US 1995-455493	19950531
PRIORITY APPLN. INFO.:			US 1992-923268	19920731
			US 1993-75128	19930610

AB Instrument configured and arranged to detect the presence or amt. of an analyte of interest on the substrate of an optical device is disclosed. The instrument has a source of linearly polarized, monochromatic light positioned at an angle other than Brewster's angle relative to the substrate; and an analyzer positioned at the same angle relative to the substrate at a location suitable for detecting reflected polarized light from the substrate; wherein the analyzer is configured and arranged to approx. maximize the change in intensity of the light reflected from the substrate that is transmitted through the analyzer when a change in mass occurs at the substrate relative to an unreacted surface.
IC ICM G01N033-543
ICS G01N
NCL 436518000
CC 9-1 (Biochemical Methods)
ST **app** light interference **immunoassay**; bacteria

antibody antigen detection **app**
IT Bacteria
Haemophilus influenzae
Neisseria meningitidis
Streptococcus pneumoniae
(devices and methods for detection of an analyte based upon light interference)
IT **Immunoassay**
(enzyme-linked immunosorbent **assay**, devices and methods for detection of an analyte based upon light interference)

L37 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:184244 HCAPLUS
DOCUMENT NUMBER: 124:222848
TITLE: Simultaneous detection, identification and differentiation of eubacterial taxa using a hybridization assay
INVENTOR(S): Jannes, Geert; Rossau, Rudi; Van Heuverswyn, Hugo
PATENT ASSIGNEE(S): Innogenetics, N.V., Belg.
SOURCE: PCT Int. Appl., 247 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9600298	A1	19960104	WO 1995-EP2452	19950623
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2193101	AA	19960104	CA 1995-2193101	19950623
AU 9529246	A1	19960119	AU 1995-29246	19950623
EP 769068	A1	19970423	EP 1995-924923	19950623
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
BR 9508101	A	19971230	BR 1995-8101	19950623
JP 10501976	T2	19980224	JP 1995-502804	19950623
EP 1088899	A2	20010404	EP 2001-200037	19950623
EP 1088899	A3	20010502		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV				
EP 1098006	A1	20010509	EP 2001-200045	19950623
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV				
EP 1098007	A1	20010509	EP 2001-200046	19950623
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
EP 1091004	A2	20010411	EP 2001-200042	19950624
EP 1091004	A3	20010418		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				

US 6025132	A	20000215	US 1996-765332		19961223
AU 9935035	A1	19990902	AU 1999-35035		19990615
AU 723742	B2	20000907			

PRIORITY APPLN. INFO.:

EP 1994-870106	A	19940624
EP 1995-870032	A	19950407
AU 1995-29246	A3	19950623
EP 1995-924923	A3	19950623
WO 1995-EP2452	W	19950623

AB A method is presented for detection and identification of at least one microorganism, or for the simultaneous detection of several microorganisms in a sample. The polynucleic acids present in the sample may need to be released, isolated, or concd., and if necessary, the 16S-23S rRNA spacer region, or a part of it, is amplified with at least one suitable primer pair. The polynucleic acids are hybridized with at least one and preferably more than one of the 112 spacer probes or their equiv., under the appropriate hybridization and wash conditions, and/or with a taxon-specific probe derived from any of 103 spacer sequences under the same hybridization and wash conditions. The hybrids formed with each of the probes used under appropriate hybridization and wash conditions are detected, the microorganism(s) present in the sample identified from the differential hybridization signals obtained.

IC ICM C12Q001-68

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 10

IT Acinetobacter
Acinetobacter baumannii
Bordetella pertussis
Brucella
Campylobacter
Cerebrospinal fluid
Chlamydia
Chlamydia psittaci
Chlamydia trachomatis
Digestive tract
Food analysis
Genitourinary tract
Haemophilus ducreyi
Haemophilus influenzae
Listeria
Listeria monocytogenes
Microorganism
Moraxella catarrhalis
Mycobacterium
Mycobacterium avium
Mycobacterium celatum
Mycobacterium chelonae
Mycobacterium fortuitum
Mycobacterium genavense
Mycobacterium gordonae
Mycobacterium haemophilum
Mycobacterium intracellulare
Mycobacterium kansasii
Mycobacterium malmoense
Mycobacterium marinum
Mycobacterium paratuberculosis
Mycobacterium scrofulaceum

Mycobacterium simiae
Mycobacterium tuberculosis
Mycobacterium ulcerans
Mycobacterium xenopi
Mycoplasma
Mycoplasma genitalium
Mycoplasma pneumoniae
Neisseria gonorrhoeae
Neisseria meningitidis
Pseudomonas
Pseudomonas aeruginosa
Respiratory tract
Salmonella
Staphylococcus
Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus
Streptococcus agalactiae
Streptococcus pneumoniae
Yersinia enterocolitica
(simultaneous detection, identification and differentiation of eubacterial taxa using a hybridization assay based on the 16 S-23 S rRNA spacer region)

IT 174696-37-8
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(probe CHPS-**ICT** 1; simultaneous detection, identification and differentiation of eubacterial taxa using a hybridization assay based on the 16 S-23 S rRNA spacer region)

IT 174696-34-5
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(probe CHTR-**ICT** 1; simultaneous detection, identification and differentiation of eubacterial taxa using a hybridization assay based on the 16 S-23 S rRNA spacer region)

IT 174696-35-6
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(probe CHTR-**ICT** 2; simultaneous detection, identification and differentiation of eubacterial taxa using a hybridization assay based on the 16 S-23 S rRNA spacer region)

IT 174696-36-7
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(probe CHTR-**ICT** 3; simultaneous detection, identification and differentiation of eubacterial taxa using a hybridization assay based on the 16 S-23 S rRNA spacer region)

L37 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:774831 HCAPLUS
DOCUMENT NUMBER: 123:164647
TITLE: Interrupted-flow assay device
INVENTOR(S): Chandler, Howard M.
PATENT ASSIGNEE(S): Smithkline Diagnostics, USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9516208	A1	19950615	WO 1994-US14004	19941206
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5468648	A	19951121	US 1993-163341	19931207
AU 9513008	A1	19950627	AU 1995-13008	19941206
AU 684585	B2	19971218		
EP 733211	A1	19960925	EP 1995-904245	19941206
EP 733211	B1	19980513		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 09506177	T2	19970617	JP 1994-516281	19941206

PRIORITY APPLN. INFO.:			
US 1993-163341	A	19931207	
US 1991-706639	A2	19910529	
US 1992-888831	B2	19920527	
US 1993-40430	A2	19930331	
WO 1994-US14004	W	19941206	

AB The present invention provides chromatog. assay devices that can perform multiple assays simultaneously in the same test strip, as well as methods for their use. One of the assays can be an immunol. assay to detect an antigen, such as human chorionic gonadotropin, while another assay can be a serol. assay to detect an antibody, such as antirubella antibody. An assay device according to the present invention can comprise: (1) a first opposable component including at least one chromatog. medium having a specific binding partner to the first analyte and a specific binding partner to the second analyte immobilized thereto in sep., discrete, non-overlapping zones; and (2) a second opposable component including an absorber. The first and second opposable components are configured such that bringing the first and second opposable components into opposition causes the absorber to come into operable contact with at least one chromatog. medium so that the zone contg. the specific binding partner to the first analyte is functionally divided from the zone contg. the specific binding partner to the second analyte so that both analytes can be detected.

IC ICM G01N033-558
ICS G01N033-543

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 14, 15

ST interrupted flow **assay** app biochem analysis; antibody antigen detn interrupted flow app; **immunochromatog assay** antibody antigen detn; chromatog **immunoassay** app

IT **Carbohydrates** and Sugars, analysis
Glycoproteins, analysis
Haptens
Hemoglobins
Mucoproteins
Proteins, analysis
RL: ANT (Analyte); ANST (Analytical study)
(interrupted-flow assay app. for antibody and **antigen** detn.)

IT **7440-57-5, Gold,** uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(interrupted-flow assay app. for antibody and antigen detn.)

L37 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:467251 HCAPLUS
DOCUMENT NUMBER: 119:67251
TITLE: Highly sensitive optical **immunoassay** using enzyme-labeled reagents
INVENTOR(S): Maul, Diana M.; Crider, Debbie G.; Bilodeau, Robert J.; Bogart, Gregory R.
PATENT ASSIGNEE(S): Biostar, Inc., USA
SOURCE: Can. Pat. Appl., 37 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2078897	AA	19930325	CA 1992-2078897	19920923
AU 9179004	A1	19921021	AU 1991-79004	19910320
AU 653940	B2	19941020		
EP 539383	A1	19930505	EP 1991-910056	19910320
EP 539383	B1	19960918		
R: BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 05506936	T2	19931007	JP 1991-509344	19910320
ES 2094224	T3	19970116	ES 1991-910056	19910320
EP 546222	A1	19930616	EP 1991-308968	19911001
EP 546222	B1	19970910		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 158080	E	19970915	AT 1991-308968	19911001
ES 2109258	T3	19980116	ES 1991-308968	19911001
US 5955377	A	19990921	US 1995-403565	19950417

PRIORITY APPLN. INFO.:

EP 1991-308968	A	19911001
US 1991-653052	A2	19910211
EP 1991-910056	A	19910320
WO 1991-US1781	A	19910320
US 1992-923090	B2	19920731
US 1993-75693	B1	19930610

AB A thin-film optical immunoassay device is disclosed which comprises a solid support substrate having an upper and lower surface, an unlabeled ligand antibody layer bound to the substrate, .gtoreq.1 layer comprising an immobilized enzyme conjugate, complexed with an analyte of interest and capable of further interacting with an enzyme-reactive delivery substance to form an insol. reaction product. The enzyme conjugate layer and the unlabeled antibody layer have a measurable increased mass change, the mass capable of pptn. by a pptg. agent applied as a substrate thereover. Also provided are a corresponding process for detection of an analyte in a medium and a diagnostic test kit for a thin-film optical immunoassay. The invention overcomes the limitations imposed by the prior art use of particulate reagent enhancers. By the use of enzyme-antibody conjugates in place of latex-reagent particles, even more highly sensitive optical thin-film assays can be obtained, particularly with selected substrates for the enzyme which provide insol. pptd. products. The invention relates

to the use of such enzyme-labeled antibody methods in thin-film assays for the detection of low levels of the polysaccharide antigens derived from the group of bacteria commonly responsible for bacterial infections in man, e.g. streptococcus. Thus, a conjugate of peroxidase with Igs from antisera against Neisseria meningitidis (A, C, Y, W135) was dild. in casein-contg. buffer and mixed with an equal vol. of a diln. of a cell-free filtrate from a culture of Neisseria meningitidis. The mixt. was pipeted onto the surface of a silicon wafer already coated with layers of silicon nitride, t-polymer siloxane, and purified Ig from the same anti-N. meningitidis antiserum. TMBlue was used as pptg. substrate; the ppt. was read by eye and by ellipsometer to confirm the presence of N. meningitidis. Visually, a 1:20,000 diln. of antigen was clearly resolved from the neg.; a com. kit's sensitivity cut-off is a 1+ at a 1:4000 diln. of the same antigen prepn.

IC ICM G01N033-569
CC 9-1 (Biochemical Methods)
ST thin film optical **immunoassay**; enzyme antibody conjugate optical **immunoassay**; Neisseria thin film optical **immunoassay**; Streptococcus thin film optical **immunoassay**
IT Bacteria
Streptococcus pneumoniae
(analyte derived from, detn. of, thin-film optical **immunoassay** device with enzyme-antibody conjugate for, increased sensitivity in relation to)
IT **Antigens**
Polysaccharides, analysis
RL: ANST (Analytical study)
(bacteria-derived, detn. of, thin-film optical **immunoassay** device with enzyme-**antibody** conjugate for, increased sensitivity in relation to)
IT Ellipsometry
(for thin-film optical **immunoassay** device with enzyme-antibody conjugate, increased sensitivity in relation to)
IT Immobilization, biochemical
(of unlabeled antibody and enzyme conjugate, for optical thin-film **immunoassay** device, increased sensitivity in relation to)
IT Films
(thin, optical **immunoassay** device using, with antibody-enzyme conjugate, increased sensitivity in relation to)
IT **Immunoassay**
(**app.**, thin-film optical, with antibody-enzyme conjugate, increased sensitivity in relation to)
IT Immunoglobulins
RL: ANST (Analytical study)
(conjugates, anti-Neisseria meningitidis, with peroxidase, for optical thin-film **immunoassay** of N. meningitidis antigens)
IT Enzymes
RL: ANST (Analytical study)
(conjugates, with antibodies, for thin-film optical **immunoassay** device, increased sensitivity in relation to)
IT Antibodies
RL: ANST (Analytical study)
(conjugates, with enzymes, for thin-film optical **immunoassay** device, increased sensitivity in relation to)
IT Neisseria meningitidis

Streptococcus
(group A, analyte derived from, detn. of, thin-film optical **immunoassay** device with enzyme-antibody conjugate for, increased sensitivity in relation to)

IT Neisseria meningitidis
Streptococcus
(group B, analyte derived from, detn. of, thin-film optical **immunoassay** device with enzyme-antibody conjugate for, increased sensitivity in relation to)

IT Neisseria meningitidis
(group C, analyte derived from, detn. of, thin-film optical **immunoassay** device with enzyme-antibody conjugate for, increased sensitivity in relation to)

IT Neisseria meningitidis
(group W-135, analyte derived from, detn. of, thin-film optical **immunoassay** device with enzyme-antibody conjugate for, increased sensitivity in relation to)

IT Neisseria meningitidis
(group Y, analyte derived from, detn. of, thin-film optical **immunoassay** device with enzyme-antibody conjugate for, increased sensitivity in relation to)

IT Antibodies
RL: ANST (Analytical study)
(monoclonal, to bacteria, detn. of, optical thin-film **immunoassay** device for)

IT **Haemophilus influenzae**
(type b, analyte derived from, detn. of, thin-film optical **immunoassay** device with enzyme-antibody conjugate for, increased sensitivity in relation to)

IT 54827-17-7, 3,3',5,5'-Tetramethylbenzidine
RL: ANST (Analytical study)
(as pptg. agent, in thin-film optical **immunoassay** with antibody-enzyme conjugate)

IT 9003-99-0D, Peroxidase, anti-bacterial antibody conjugates
RL: ANST (Analytical study)
(for thin-film optical **immunoassay** device)

IT 12033-89-5, Silicon nitride, biological studies
RL: BIOL (Biological study)
(silicon wafer coated with, optical thin-film **immunoassay** in relation to)

IT 7440-22-4, Silver, biological studies
RL: BIOL (Biological study)
(silicon wafer colored with, optical thin-film **immunoassay** in relation to)

IT 7440-21-3, Silicon, biological studies
RL: BIOL (Biological study)
(wafer, silicon nitride-coated or silver-colored, optical thin-film **immunoassay** in relation to)

L37 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1987:64041 HCAPLUS
DOCUMENT NUMBER: 106:64041
TITLE: Solid-phase system and **apparatus** for use in ligand-receptor **assays**, particularly **immunoassays**
INVENTOR(S): Rubenstein, Albert Samuel
PATENT ASSIGNEE(S): Hybritech, Inc., USA

SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 200381	A1	19861105	EP 1986-302521	19860404
EP 200381	B1	19930127		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
CA 1272127	A1	19900731	CA 1986-505788	19860403
FI 8601460	A	19861005	FI 1986-1460	19860404
FI 92257	B	19940630		
FI 92257	C	19941010		
DK 8601538	A	19861005	DK 1986-1538	19860404
DK 171928	B1	19970811		
NO 8601317	A	19861006	NO 1986-1317	19860404
NO 170825	B	19920831		
NO 170825	C	19921209		
AU 8655657	A1	19861016	AU 1986-55657	19860404
AU 605101	B2	19910110		
JP 61292059	A2	19861222	JP 1986-78064	19860404
JP 07113636	B4	19951206		
ES 553724	A1	19890201	ES 1986-553724	19860404
ES 553724	A5	19890331		
EP 437287	A2	19910717	EP 1991-103886	19860404
EP 437287	A3	19910724		
EP 437287	B1	19960717		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 85129	E	19930215	AT 1986-302521	19860404
AT 140539	E	19960815	AT 1991-103886	19860404
US 5879881	A	19990309	US 1993-162791	19931207

PRIORITY APPLN. INFO.:
US 1985-720036 19850404
US 1986-847799 19860403
EP 1986-302521 19860404
US 1987-3496 19870115
US 1990-579087 19900907
US 1992-879693 19920505

AB A solid-phase system for use in title assays (e.g., immunoassays, nucleic acid probe assays) comprises a porous matrix in which microspheres, bound to a receptor capable of capturing a target ligand, are entrapped. Microspheres with different bound receptors may be entrapped at different sites in the matrix enabling the detn. of .gtoreq.2 analytes in a sample at the same time. Also, internal controls may be incorporated by having zones of microspheres without receptors. For the detection of human chorionic gonadotropin (HCG) in urine, polystyrene microspheres were activated with monoclonal antibodies to HCG and then entrapped in Whatman GF/F glass fiber filters incorporated in an immunoconcn. app. Urine, followed by alk. phosphatase-labeled monoclonal antibodies to HCG, were applied to the filter and drawn through. The filter was washed and indoxyl phosphate was added. A dark blue color developed in the discrete zone of activated microspheres, indicating the presence of HCG.

IC ICM G01N033-549
ICS G01N033-545; G01N033-551; G01N033-577; G01N033-564; G01N033-569; G01N033-74; G01N033-70

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 2, 15
ST solid phase ligand receptor **assay**; chorionic gonadotropin solid phase EIA; microsphere ligand receptor **assay**
IT Bacteria
Candida albicans
Chlamydia trachomatis
Fungi
Haemophilus influenzae
Neisseria gonorrhoeae
Parasite
Trichomonas vaginalis
Virus, animal
(detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Receptors
RL: ANST (Analytical study)
(matrix-entrapped microsphere-bound, for ligands, detn. of, by solid-phase **assay**)
IT Allergens
Antigens
RL: ANST (Analytical study)
(matrix-entrapped microsphere-bound, in solid-phase **immunoassay**)
IT Latex
(matrix-entrapped microspheres, receptor-bound, in solid-phase **immunoassay**)
IT Blood analysis
Urine analysis
(matrix-entrapped receptor-bound microspheres in solid-phase **immunoassay** for)
IT Ceramic materials and wares
Filtering materials
Glass fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
RL: USES (Uses)
(receptor-bound microspheres entrapped in, for solid-phase **immunoassay**)
IT Ligands
RL: ANST (Analytical study)
(receptor-bound microspheres for, porous matrix-entrapped, in solid-phase **assay**)
IT Antibodies
RL: PROC (Process)
(to rubella virus, detn. of, with matrix-entrapped receptor-bound microspheres in solid-phase **immunoassay**)
IT Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(E, detn. of, matrix-entrapped allergen-bound microspheres in **immunoassay** for)
IT Virus, animal
(adeno-, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(carcinoembryonic, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)

IT Virus, animal
(cytomegalo-, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT **Immunochemical analysis**
(enzyme **immunoassay**, solid-phase, matrix-entrapped **antigen**- or **antibody**-bound microspheres in)
IT Streptococcus
(group A, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Streptococcus
(group B, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(hepatitis, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(hepatitis A, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(hepatitis B, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(hepatitis, non-A, non-B, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(herpes, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(human T-cell leukemia, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT **Immunochemical analysis**
(**immunoassay**, solid-phase, matrix-entrapped **antigen** - or **antibody**-bound microspheres in)
IT Virus, animal
(influenza, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(prostate-specific, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(respiratory syncytial, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(rota-, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Virus, animal
(rubella, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT Fetoproteins
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.-, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT 9001-77-8 9002-61-3, Choriogonadotropin 9002-67-9

RL: ANT (Analyte); ANST (Analytical study)
(detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT 9001-15-4
RL: ANST (Analytical study)
(isoenzymes, detn. of, matrix-entrapped receptor-bound microspheres in **immunoassay** for)
IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene
RL: ANST (Analytical study)
(matrix-entrapped microspheres, receptor-bound, in solid-phase **immunoassay**)

L37 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1985:75210 HCAPLUS
DOCUMENT NUMBER: 102:75210
TITLE: Immunoblot method for identifying surface components, determining their cross-reactivity, and investigating cell topology: results with **Haemophilus influenzae** type b
AUTHOR(S): Loeb, Marilyn R.
CORPORATE SOURCE: Med. Cent., Univ. Rochester, Rochester, NY, 14642, USA
SOURCE: Anal. Biochem. (1984), 143(1), 196-204
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An outer membrane prepn. derived from encapsulated (type b) H. influenzae was resolved by SDS-polyacrylamide gel electrophoresis, and the sepd. components were then transferred electrophoretically to nitrocellulose. The nitrocellulose was cut into vertical **strips**, which were then each incubated with rabbit antiserum to the whole bacterium or with the same antiserum after absorption with any of the following: the same strain of H. influenzae, a capsule-deficient mutant of that strain, other strains of H. influenzae, or other bacteria. The **strips** were then incubated with 125I-protein A, and the bound antibodies were detected by autoradiog. The autoradiograph of the **strip** exposed to unabsorbed antisera revealed the identity of those individual outer membrane components that bound antibodies. A comparison of the intensity of the various bands on this **strip** with those on the **strips** exposed to adsorbed antisera was then used to identify: (1) surface-exposed components, (2) those components occluded by capsule, and (3) cross-reactivity of exposed components. This method should be applicable to other cells and subcellular particles. Its major disadvantage is that it can provide false neg. results.
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 10
IT Lipopolysaccharides
Proteins
RL: ANT (Analyte); ANST (Analytical study)
(detection of, of **Haemophilus influenzae** surface membrane by gel electrophoresis and immunoblot)
IT **Immunochemical analysis**
(gel electrophoresis combined with, of lipopolysaccharides and proteins

of **Haemophilus influenzae** surface membrane)
IT **Haemophilus influenzae**
(lipopolysaccharides and proteins in surface membranes of, by gel electrophoresis and immunoblot)
IT Electrophoresis and Ionophoresis
(gel, immunoblot combined with, of lipopolysaccharides and proteins of **Haemophilus influenzae** surface membrane)
IT Cell wall
(outer membrane, lipopolysaccharides in proteins detection in, of **Haemophilus influenzae** surface membrane by gel electrophoresis and immunoblotting)

L37 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1984:625331 HCAPLUS
DOCUMENT NUMBER: 101:225331
TITLE: Pyridinium 2-azo-p-dimethylaniline chromophore, a chromogenic reagent for .beta.-lactamase testing compared to nitrocefin
AUTHOR(S): Barlam, T.; Neu, H. C.
CORPORATE SOURCE: Coll. Phys. Surg., Columbia Univ., New York, NY, 10032, USA
SOURCE: Eur. J. Clin. Microbiol. (1984), 3(3), 185-9
CODEN: EJCMDM; ISSN: 0722-2211
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Pyridinium-2-azo-p-dimethylaniline chromophore was evaluated as a test tube, filter paper, and spectrometric assay for detection of .beta.-lactamases from gram-pos. and gram-neg. organisms. Although useful for detection of TEM .beta.-lactamases in Haemophilus influenzae and Neisseria gonorrhoeae, it was a poor agent for detecting TEM, OXA, and PSE enzymes in Enterobacteriaceae. It also proved poor for detecting cephalosporinases in Pseudomonas aeruginosa and Enterobacteriaceae, and penicillinases in Staphylococcus aureus when compared to nitrocefin. As a spectrometric substrate it was equiv. to nitrocefin and cephaloridine with various .beta.-lactamases, but it was not useful in the above assays with test tubes or filler paper **strips**.
CC 7-1 (Enzymes)
Section cross-reference(s): 9, 10
IT Bacteria
Haemophilus influenzae
Neisseria gonorrhoeae
(.beta.-lactamase of, detn. of, azodimethylaniline chromophore as substrate for)
IT 9001-74-5 9012-26-4
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, azodimethylaniline chromophore as substrate for, of bacteria, spectrometric **assay** in relation to)

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FILE 'WPIDS' ENTERED AT 14:50:46 ON 06 AUG 2001
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MOST RECENT DERWENT UPDATE            200143   <200143/DW>
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                DEL HIS Y
L1           110 S IMMUNOCHROMATOG?
L2            33 S ICT
L3           140 S L1 OR L2
L4         24802 S  ANTIGEN?
L5         39493 S ANTIBOD?
L6            42 S L3 AND L4 AND L5
L7          1425 S H INFLUENZ? OR HAEMOPHI?
L8             0 S L6 AND L7
L9             0 S L7 AND L3
L10          138 S L4 AND L5 AND L7
L11        27593 S ASSAY? OR IMMUNOASSAY? OR IMMUNOCHEM?
L12           38 S L10 AND L11
L13      1562337 S APP## OR APPARAT? OR STRIP#
L14            1 S L12 AND L13
L15        74565 S AU OR GOLD
L16            2 S L12 AND L15
L17          535 S (CARBOHYDRAT## OR ?SACCHARIDE?) (4A) L4
L18            6 S L12 AND L17
L19            7 S L14 OR L16 OR L18

     FILE 'WPIDS' ENTERED AT 14:50:46 ON 06 AUG 2001

=> d .wp 1-7


L19  ANSWER 1 OF 7  WPIDS COPYRIGHT 2001   DERWENT INFORMATION LTD
AN   2001-328612 [34]   WPIDS
DNC  C2001-100777
```

TI Determining the dose response of a human to a bacterial polysaccharide conjugate vaccine comprises measuring an immune response.
DC B04 D16
IN LAFERRIERE, C A J; POOLMAN, J; SLAOUI, M M
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
CYC 94
PI WO 2001030390 A2 20010503 (200134)* EN 35p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
ADT WO 2001030390 A2 WO 2000-EP10733 20001027
PRAI GB 1999-25559 19991028
AB WO 200130390 A UPAB: 20010620
NOVELTY - A method (I) of determining the dose response of a human to a polysaccharide conjugate vaccine, is new,
DETAILED DESCRIPTION - A method (I) of determining the dose response of a human to a polysaccharide conjugate vaccine comprising an immunogenic carrier protein and a bacterial polysaccharide. The method comprises:
(a) administering a dose of the conjugate vaccine to an infant animal; and
(b) determining the immune response of the animal to the bacterial polysaccharides as a measure of the immune response of a human.
INDEPENDENT CLAIMS are included for the following:
(1) The use of animals in (I); and
(2) A combination vaccine (II) comprising 2 or more pneumococcal capsular **polysaccharide** conjugate **antigens** at an optimal concentration for inducing an optimal anti-polysaccharide **antibody** response when administered to a human;
ACTIVITY - Antibacterial.
MECHANISM OF ACTION - Vaccine.
No supporting data is given.
USE - (II) can be used to treat pneumococcal disease in a human host and for the manufacture of medicaments for treatment (both claimed).
The method (I) is used for testing a vaccine response in an animal model to obtain information on the response to humans to the same vaccine **antigen** (claimed). The animals may be used in potency tests for the lot release of batches of vaccines to ensure that a related response in humans would be acceptable, and in pre-clinical studies to evaluate the efficacy of new formulations of conjugate without initially having to conduct human trials. The animal model is used to develop a combination vaccine comprising 2 or more pneumococcal capsular **polysaccharide** conjugate **antigens** at an optimal concentration of inducing an optimal anti-polysaccharide **antibody** response when administered to a human.
ADVANTAGE - The animal model is highly predictive of the human response to the **antigen**.
Dwg.0/12

L19 ANSWER 2 OF 7 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-442428 [38] WPIDS
DNN N2000-330108 DNC C2000-134585
TI New biosensors for detection of analytes, especially yeast, fungi,

bacteria, or virus, comprises an **antibody**-binding protein layer printed in a pattern onto a polymer film and an **antibody** attached to it.

DC A18 A28 A96 B04 D16 J04 M13 S03
IN EVERHART, D S; KAYLOR, R M; MCGRATH, K
PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC
CYC 89
PI WO 2000036416 A1 20000622 (200038)* EN 34p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000017431 A 20000703 (200046)
ADT WO 2000036416 A1 WO 1999-US27727 19991122; AU 2000017431 A AU 2000-17431 19991122
FDT AU 2000017431 A Based on WO 200036416
PRAI US 1998-213713 19981217
AB WO 200036416 A UPAB: 20000811

NOVELTY - A biosensor comprising a polymer film, and an **antibody**-binding protein (ABP) layer printed in a pattern onto the polymer film, where the ABP layer has an **antibody** on it that is specific for an analyte, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) making a biosensor comprising printing a pattern of ABP layer with a subsequent layer of **antibody** on the polymer film;

(2) detecting an analyte in a medium, comprising contacting the medium with a biosensing device of the novelty, transmitting light through the polymer film, and detecting the presence of the analyte bound to the **antibody**, by detecting a pattern form by diffraction of the light; and

(3) a biosensor comprising a polymer film, and an ABP layer printed in a pattern onto the polymer film where the ABP layer is capable of acting as a receptor for an analyte.

USE - The biosensors can be used for the detection of analytes such as bacteria, yeast, fungus, virus, rheumatoid factor, IgG, IgM, IgA and IgE **antibodies**, carcinoembryonic **antigen**, streptococcus Group A **antigen**, viral **antigens**, **antigens** associated with autoimmune disease, allergens, tumor **antigens**, streptococcus Group B **antigen**, human immunodeficiency virus (HIV) I or HIV II **antigen**, **antibodies**, viruses, **antigens** specific to Rous sarcoma virus (RSV) **antigen**, enzyme, hormone, **polysaccharide**, protein, lipids, carbohydrate, drug, nucleic acid, Neisseria meningitides groups A, B, C, Y and W sub 135, Streptococcus pneumoniae, Escherichia coli K1, **Haemophilus** influenza type B, an **antigen** derived from microorganisms, a hapten, a drug of abuse, a therapeutic drug, an environmental agent, **antigens** specific to hepatitis, or especially Candida sp. or Salmonella sp. (claimed). The biosensors can be used to detect contamination in garments, such as diapers, and to detect contamination by microorganisms. They can also be used on contact lenses, eyeglasses, window panes, pharmaceutical vials, solvent containers, water bottles, or adhesive bandages, to detect contamination.

ADVANTAGE - The method allows a modular production format so that

large rolls of patterned protein may be made for use with different analytes. The final product may be made by exposure to the necessary **antibody**. A diffraction image is produced which can be easily seen with the eye or, optionally, with a sensing device. The biosensors allow detection of extremely small quantities of analyte in a medium in a rapid **assay** lasting only a few minutes. In addition, no signaling or associate electronic components are required in the biosensing devices. Dwg.0/2

L19 ANSWER 3 OF 7 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-561863 [47] WPIDS
DNC C1999-163794
TI Composition for inducing a type 2 T cell-independent immune response to an
antigen, particularly for protection against bacteria.
DC B04 C06 D16
IN MOND, J J; SNAPPER, C M
PA (JACK-N) JACKSON FOUND ADVANCEMENT MILITARY MED
CYC 21
PI WO 9947168 A2 19990923 (199947)* EN 41p
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP
AU 9930054 A 19991011 (200008)
ADT WO 9947168 A2 WO 1999-US5647 19990315; AU 9930054 A AU 1999-30054 19990315
FDT AU 9930054 A Based on WO 9947168
PRAI US 1998-39247 19980316
AB WO 9947168 A UPAB: 19991116
NOVELTY - Composition (A) comprises a type 2 T cell-independent **antigen** (Ag) conjugated to a lipid (or lipid-containing component) (B) that promotes an immune response to Ag.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) pharmaceutical composition or vaccine containing (A) dissolved or suspended in a carrier; and
(2) **assay** system for identifying compositions that stimulate isotype switching and/or a B cell memory response.
ACTIVITY - Antibacterial.
MECHANISM OF ACTION - Induction of a specific immune response.
USE - (A) are used to promote a type 2 T cell-independent immune response to Ag (particularly a bacterial polysaccharide), especially in immunocompromised humans, e.g. patients deficient in T cell, neonates, the elderly, or subjects who are immunodefective because of exposure to viruses or other microorganisms, radiation, cytotoxic chemicals, corticosteroids or other immunosuppressants. (A) are useful in human or veterinary medicine.
ADVANTAGE - (A) elicit a primary response that is about 10 times greater than that produced when Ag and B are administered as separate components. They also induce a secondary response, i.e. a vigorous memory response and/or promotion of isotype switching. (A) are effective even in absence of functional cytokine-producing T cells. Mice were rendered T cell defective by administration of an anti-CD4 **antibody**, then one day later they were injected with 5 micro g of (i) Streptococcus pneumoniae type 14 polysaccharide/lipoprotein D complex or (ii) the polysaccharide only. After 14 days, the immunoglobulin G1 titer (ng/ml)

against the polysaccharide was 5834 in (i) but less than 10 in (ii). Dwg.0/0

L19 ANSWER 4 OF 7 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-443884 [37] WPIDS
DNN N1999-331070 DNC C1999-130702
TI Biosensors used to detect analyte, e.g. chemical or biological contamination in garments, e.g. diapers.
DC A18 A23 A26 A96 B04 D16 D22 E13 J04 P75 S03
IN EVERHART, D S; JONES, M L; KAYLOR, R M
PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC
CYC 84
PI WO 9931486 A1 19990624 (199937)* EN 39p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
AU 9919205 A 19990705 (199948)
US 6060256 A 20000509 (200030)
EP 1040338 A1 20001004 (200050) EN
R: BE DE ES FR GB IT NL SE
CN 1286753 A 20010307 (200140)
ADT WO 9931486 A1 WO 1998-US26759 19981216; AU 9919205 A AU 1999-19205 19981216; US 6060256 A US 1997-991644 19971216; EP 1040338 A1 EP 1998-963991 19981216, WO 1998-US26759 19981216; CN 1286753 A CN 1998-812255 19981216
FDT AU 9919205 A Based on WO 9931486; EP 1040338 A1 Based on WO 9931486
PRAI US 1997-991644 19971216
AB WO 9931486 A UPAB: 19990914
NOVELTY - Biosensors comprising:
(a) polymer film coated with metal; and
(b) patterned receptor layer printed onto (a) on which is a receptive material that specifically binds analyte.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) Methods of detecting analyte using the sensor; and
(2) A method of making the biosensor.
USE - Used to detect analyte. Used particularly in the field of microcontact printing binders on metal films to produce optical diffraction biosensors. Used as single tests for detecting analyte or as multiple test devices. Used for detection of chemical or biological contamination in garments such as diapers, detection of contamination by microorganisms in pre-packed foods such as fruit juices and other beverages, and in health diagnostic applications such as diagnostic kits for detection of **antigens**, microorganisms, and blood constituents. May be used on contact lenses, eyeglasses, windowpanes, pharmaceutical vials, solvent containers, water bottles and plasters to detect contamination. Used in **immunoassays** for either **antigen** or **antibody** detection, for use in direct, indirect or competitive detection systems, for determination of enzymatic activity, for detection of small organic molecules (drugs of abuse, therapeutic drugs, environmental agents) and nucleic acids. Samples with patterned **antibody** to Candida albicans were prepared by pretreating **gold**/polyester (10 nm thick) by immersion in 5 mg/ml

phosphate-buffered saline solution (pH 7.2) of beta-casein for 10 minutes.
The sample was rinsed thoroughly with distilled water and dried under a strong nitrogen stream. Contact printing was done using a polydimethylsiloxane stamp with an x,y array of 10 mu m diameter circles. The stamp was coated with a thiolated **antibody** to Candida albicans by immersing in a 0.5 mg/ml aqueous solution of **antibody** derivative. After 10 minutes, the stamp was removed and thoroughly dried using a strong stream of nitrogen. Contact printing was done on the casein-treated sample, with exposure times of 1 second to 2 minutes being adequate. After printing, the sample was again rinsed with distilled water
and dried. The sensor sample was exposed to germ tube-bearing cells of C. albicans by inoculating tape-stripped adult forearm skin with a concentration of 106 yeast cells/ml and placing the sensor on top of the yeast-containing tape. Transfer of the yeast cells to the sensor was accomplished after only a few seconds of contact. Patterned adhesion of the yeast cells to the sensor was confirmed by microscopic analysis and resulted in a diffraction image upon irradiation with a laser.
ADVANTAGE - Are inexpensive and sensitive devices. Produced by easy, efficient and simple method of contact printing a patterned receptor on an
optically transparent, flexible substrate, that is amenable to continuous processing and does not use self-assembling monolayers. Are simpler than prior art, are not restricted to limitations of self-assembling monolayers
and are easier to manufacture. Are low-cost and disposable and can be mass-produced.
DESCRIPTION OF DRAWING(S) - Schematic representation of metal-plated MYLAR (RTM) film with nutrient backing.
MYLAR film (RTM: polyethylene-terephthalate) 15
metal film 20
receptors specific for microorganism 25
nutrient backing 30
Dwg.1/8

L19 ANSWER 5 OF 7 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-340536 [31] WPIDS
CR 1991-117618 [16]; 1991-117625 [16]; 1992-300174 [36]; 1992-300183 [36];
1992-349359 [42]; 1994-065810 [08]; 1996-010090 [01]; 1996-076885 [08];
1996-361950 [36]; 1997-288174 [26]; 1999-152762 [13]
DNN N1997-282600 DNC C1997-109335
TI Optimisation of visual signal from optical **assay** device - for detection of analyte, e.g. rheumatoid factor, viral **antigens**, **carbohydrate**, drug or nucleic acid.
DC B04 D16 J04 S02 S03
IN BOGART, G R; ETTER, J B
PA (BIOS-N) BIOSTAR INC
CYC 1
PI US 5639671 A 19970617 (199731)* 69p
ADT US 5639671 A CIP of US 1989-408291 19890918, CIP of US 1992-873097 19920424, CIP of US 1992-923048 19920731, Cont of US 1993-76319 19930610, US 1995-412600 19950328
PRAI US 1993-76319 19930610; US 1989-408291 19890918; US 1992-873097 19920424; US 1992-923048 19920731; US 1995-412600 19950328

AB US 5639671 A UPAB: 19990331
Optimizing a visual signal from an optical **assay** device for the detection of an analyte comprises: (a) providing a substrate having an anti-reflective film on it, with a series of thicknesses (preferably optimal) varied incrementally along the length of the substrate, providing an attachment layer of a chosen thickness on the anti-reflective film and providing a receptive layer of a chosen thickness for the analyte on the attachment layer; (b) contacting the analyte with the receptive layer such that a mass change on the receptive layer results, and (c) determining at least 1 thickness of the series of thicknesses of the anti-reflective film that, in combination with the other layers of the device, produces a visual signal comprising a maximised visual contrast in interference colour upon the change in mass relative to a background interference colour, over a range of concentrations of the analyte.
USE - The method can be used to detect analytes such as rheumatoid factor, immunoglobulin E **antibodies** specific for Birch pollen, carcinoembryonic **antigen**, Streptococcus Group A **antigen**, viral **antigens**, **antigens** associated with autoimmune disease, allergens, a tumour or an infectious microorganism, Streptococcus Group B **antigen**, HIV I or HIV II **antigen**, host response (**antibodies**) to the virus, **antigens** specific to RSV or host response (**antibodies**) to the virus, an **antibody**, **antigen**, enzyme, hormone, **polysaccharide**, protein, lipid, carbohydrate, drug or nucleic acid, analyte derived from causative organisms for meningitis, Neisseria meningitidis groups A, B, C, Y and W135, S. pneumoniae, E. coli K1, **Haemophilus** influenzae type B, **antigen** derived from microorganisms, a hapten, a drug of abuse (including drugs which are unlawful to use without a permit or license), a therapeutic drug, an environmental agent and **antigens** specific to hepatitis.
Dwg.0/18

L19 ANSWER 6 OF 7 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1994-200269 [24] WPIDS
DNC C1994-091569
TI Nucleic acid encoding D15 outer membrane protein - esp. of **Haemophilus** influenzae, and related proteins, vectors, antisera etc. useful in vaccines, for diagnosis and for passive immunisation..
DC B04 D16
IN CHONG, P; KLEIN, M; LOOSMORE, S; SIA, D Y C; THOMAS, W; YANG, Y; LOOSMORE, S M; SIA, D; YANG, Y P
PA (CONN-N) CONNAUGHT LAB LTD
CYC 28
PI WO 9412641 A1 19940609 (199424)* 161p
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: AU BR CA FI JP KR NO NZ RU UA US
AU 9455565 A 19940622 (199436)
EP 668916 A1 19950830 (199539) EN
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
JP 08502417 W 19960319 (199644) 156p
AU 683435 B 19971113 (199803)
BR 9307510 A 19990601 (199927)

JP 2907552 B2 19990621 (199930) 181p
US 6013514 A 20000111 (200010)
US 6083743 A 20000704 (200036)
RU 2141528 C1 19991120 (200041)
KR 216390 B1 19990816 (200104)

ADT WO 9412641 A1 WO 1993-CA501 19931123; AU 9455565 A AU 1994-55565 19931123;
EP 668916 A1 WO 1993-CA501 19931123, EP 1994-900671 19931123; JP 08502417 W WO 1993-CA501 19931123, JP 1994-512608 19931123; AU 683435 B AU 1994-55565 19931123; BR 9307510 A BR 1993-7510 19931123, WO 1993-CA501 19931123; JP 2907552 B2 WO 1993-CA501 19931123, JP 1994-512608 19931123; US 6013514 A WO 1993-CA501 19931123, US 1995-433522 19950912; US 6083743 A
Cont of WO 1993-CA501 19931123, Cont of US 1995-433522 19950912, US 1998-135166 19980818; RU 2141528 C1 WO 1993-CA501 19931123, RU 1995-117238
19931123; KR 216390 B1 WO 1993-CA501 19931123, KR 1995-702081 19950523

FDT AU 9455565 A Based on WO 9412641; EP 668916 A1 Based on WO 9412641; JP 08502417 W Based on WO 9412641; AU 683435 B Previous Publ. AU 9455565, Based on WO 9412641; BR 9307510 A Based on WO 9412641; JP 2907552 B2 Previous Publ. JP 08502417, Based on WO 9412641; US 6013514 A Based on WO 9412641; RU 2141528 C1 Based on WO 9412641

PRAI GB 1992-24584 19921123

AB WO 9412641 A UPAB: 19940803
New nucleic acid (I) contains at least a portion coding for a D15 outer membrane protein (omp) and has a sequence which is (a) any of 5 (all about
3000bp) reproduced in the specification, or complementary sequences or (b)
hybridsable under stringent conditions with such sequences. Also new are (1) recombinant plasmids contg. a segment of (I) at least 18 bp long (and opt. expression control elements, (12) proteins (II) encoded by these plasmids; (3) purified D15 omp (III); (4) synthetic polypeptides with sequences corresp. to (II) or (III), or their variants and mutants which retain immunogenicity; (5) antisera or **antibodies** specific for (II), (III) or immunologous contg. them; (6) chimeric molecules consisting
of (II) or (III) bonded to another polypeptides, protein or polysaccharides.
USE - (I), (II) and the synthetic polypeptides are useful in vaccines
to protect against **Haemophilus**. D15 can also be used as a carrier for **polysaccharide antigens** to form conjugate vaccines against other bacteria; to induce immunity to abnormal polysaccharides or tumour cells and to generate anti-tumour **antibodies**, for coupling to toxins etc. (I), (II) synthetic peptides and antisera can also be used diagnostically (in hybridisation or
immunoassay procedures) and **antibodies** can be used for passive immunisation.
Dwg.0/11

L19 ANSWER 7 OF 7 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1986-292987 [45] WPIDS
CR 1991-209899 [29]
DNN N1986-218851 DNC C1986-126914
TI Solid phase system for use in ligand-receptor **assays** - e.g. for

detection of human choriogonadotropin **antigen** in urine.

DC A89 B04 D16 J04 S03
IN RUBENSTEIN, A S
PA (HYBR-N) HYBRITECH INC
CYC 18
PI EP 200381 A 19861105 (198645)* EN 30p
R: AT BE CH DE FR GB IT LI LU NL SE
AU 8655657 A 19861016 (198648)
NO 8601317 A 19861027 (198650)
FI 8601460 A 19861005 (198703)
JP 61292059 A 19861222 (198705)
DK 8601538 A 19861005 (198706)
ES 8900176 A 19890501 (198924)
CA 1272127 A 19900731 (199036)
EP 200381 B1 19930127 (199304) EN 14p
R: AT BE CH DE FR GB IT LI LU NL SE
DE 3687589 G 19930311 (199311)
FI 92257 B 19940630 (199428)
JP 07113636 B2 19951206 (199602) 13p
DK 171928 B 19970811 (199739)
ADT EP 200381 A EP 1986-302521 19860404; JP 61292059 A JP 1986-78064 19860404;
ES 8900176 A ES 1986-553724 19860404; EP 200381 B1 EP 1986-302521 19860404; DE 3687589 G DE 1986-3687589 19860404, EP 1986-302521 19860404; FI 92257 B FI 1986-1460 19860404; JP 07113636 B2 JP 1986-78064 19860404; DK 171928 B DK 1986-1538 19860404
FDT DE 3687589 G Based on EP 200381; FI 92257 B Previous Publ. FI 8601460; JP 07113636 B2 Based on JP 61292059; DK 171928 B Previous Publ. DK 8601538
PRAI US 1985-720036 19850404
AB EP 200381 A UPAB: 19940907

Solid phase system for use in a ligand-receptor **assay** for the detection of a selected analyte in a fluid sample comprises a porous matrix in which microspheres are entrapped, the microspheres being bound with a receptor capable of capturing a target ligand.

The system is for use in a multiple ligand-receptor **assay** for simultaneous detection of at least two selected analytes, distinct gps. of microspheres that are entrapped within discrete zones in the porous matrix, each gp. of microspheres being bound with a receptor capable of capturing a different target ligand.

The following specific cases are claimed: one gp. of microspheres is bound with a receptor capable of capturing a target ligand; and one gp. of microspheres is bound with either (1) the target ligand or other receptor substance as a positive control; or (2) a substance incapable of capturing the target ligand without a bound component, as a negative control for the detection the analyte. **Appts**. is also provided.

USE/ADVANTAGE - The system is useful for **assay** of **antigens** such as prostatic acid phosphatase, prostate-specific **antigen** alpha foetoprotein, carcinoembryonic **antigen**, lentenising hormone and creatine kinase isoenzyme. It is also useful for the **assay** of viruses, bacteria, parasites or fungi or associated **antigens** or **antibodies**, e.g. rubella, rota, hepatitis, herpes and influenza viruses, HTLV, group A and group B streptococcus, Neisseria gonorrhea, Trichomonas vaginalis, Candida albicans, Chamydia trachomatis and **Haemophilus** influenza. The system may also be

employed in nucleic acid probe technology.
0/6
Dwg.0/6

<------User Break------>

```
=> fil medline

FILE 'MEDLINE' ENTERED AT 14:58:00 ON 06 AUG 2001

 FILE LAST UPDATED: 30 JUL 2001 (20010730/UP). FILE COVERS 1958 TO DATE.

 On April 22, 2001, MEDLINE was reloaded. See HELP RLOAD for details.

 MEDLINE now contains new records from the former NLM HEALTH STAR
 database. These records have an Entry Date and Update Date of 20010223.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2001 vocabulary. Enter HELP THESAURUS for details.

 The OLDMEDLINE file segment now contains data from 1958 through 1965.
 Enter HELP CONTENT for details.

 Left, right, and simultaneous left and right truncation are available in the
 Basic Index. See HELP SFIELDS for details.

 THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE
 SUBSTANCE IDENTIFICATION.

=> d his


     (FILE 'MEDLINE' ENTERED AT 14:51:27 ON 06 AUG 2001)
                DEL HIS Y
L1           226 S IMMUNOCHROMATOGRA?
                E HAEMOPHILUS/CT
L2          2001 S HAEMOPHILUS/CT
L3             0 S L1 AND L2
                E IMMUNOCHEMISTRY/CT
                E E3+AL
                E E3+ALL
L4        258309 S IMMUNOCHEMISTRY+NT/CT
                E CHROMATOGRAPHY/CT
                E E3+ALLK
                E E3+ALL
L5             0 S CHROMATOGRAPY/CT
L6         26123 S CHROMATOGRAPHY/CT
L7             7 S L6 AND L2
L8             0 S L7 AND L4
L9         10860 S ASSAY/CT OR IMMUNOASSAY/CT
L10        10860 S ASSAYS/CT OR IMMUNOASSAY/CT
L11            0 S L10 AND L7
L12            2 S L7 AND (ASSAY? OR IMMUNOASSAY?)
L13        99901 S STRIP# OR APP## OR APPARATUS
L14           12 S L13 AND L2
L15            0 S L14 AND (L6 OR L10)
                E GOLD/CT
L16         6189 S GOLD/CT
L17            1 S L16 AND L2
L18           15 S L12 OR L14 OR L17

     FILE 'MEDLINE' ENTERED AT 14:58:00 ON 06 AUG 2001
```

=> d .med l18 1-15

L18 ANSWER 1 OF 15 MEDLINE
AN 2000087378 MEDLINE
DN 20087378 PubMed ID: 10618273
TI Immunoglobulins in nasal secretions of healthy humans: structural integrity of secretory immunoglobulin A1 (IgA1) and occurrence of neutralizing antibodies to IgA1 proteases of nasal bacteria.
AU Kirkeby L; Rasmussen T T; Reinholdt J; Kilian M
CS Department of Medical Microbiology and Immunology, University of Aarhus, DK-8000 Aarhus C, Denmark.
SO CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (2000 Jan) 7 (1) 31-9. Journal code: CB7; 9421292. ISSN: 1071-412X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200003
ED Entered STN: 20000314
Last Updated on STN: 20000314
Entered Medline: 20000302
AB Certain bacteria, including overt pathogens as well as commensals, produce immunoglobulin A1 (IgA1) proteases. By cleaving IgA1, including secretory IgA1, in the hinge region, these enzymes may interfere with the barrier functions of mucosal IgA antibodies, as indicated by experiments in vitro.
Previous studies have suggested that cleavage of IgA1 in nasal secretions may be associated with the development and perpetuation of atopic disease.
To clarify the potential effect of IgA1 protease-producing bacteria in the nasal cavity, we have analyzed immunoglobulin isotypes in nasal secretions of 11 healthy humans, with a focus on IgA, and at the same time have characterized and quantified IgA1 protease-producing bacteria in the nasal flora of the subjects. Samples in the form of nasal wash were collected by using a washing liquid that contained lithium as an internal reference. Dilution factors and, subsequently, concentrations in undiluted secretions could thereby be calculated. IgA, mainly in the secretory form, was found by enzyme-linked immunosorbent **assay** to be the dominant isotype in all subjects, and the vast majority of IgA (median, 91%) was of the A1 subclass, corroborating results of previous analyses at the level of immunoglobulin-producing cells. Levels of serum-type immunoglobulins were low, except for four subjects in whom levels of IgG corresponded to 20 to 66% of total IgA. Cumulative levels of IgA, IgG, and IgM in undiluted secretions ranged from 260 to 2,494 (median, 777) &mgr;g ml(-1). IgA1 protease-producing bacteria (Haemophilus influenzae, Streptococcus pneumoniae, or Streptococcus mitis biovar 1) were isolated from the nasal cavities of seven subjects at 2.1 x 10(3) to 7.2 x 10(6) CFU per ml of undiluted secretion, corresponding to 0.2 to 99.6% of the flora. Nevertheless, alpha-chain fragments characteristic of IgA1 protease

activity were not detected in secretions from any subject by immunoblotting. Neutralizing antibodies to IgA1 proteases of autologous isolates were detected in secretions from five of the seven subjects but not in those from two subjects harboring IgA1 protease-producing S. mitis biovar 1. alpha-chain fragments different from Fc(alpha) and Fd(alpha) were detected in some samples, possibly reflecting nonspecific proteolytic activity of microbial or host origin. These results add to previous evidence for a role of secretory immunity in the defense of the nasal mucosa but do not help identify conditions under which bacterial IgA1 proteases may interfere with this defense.

CT Check Tags: Human; Support, Non-U.S. Gov't
Adult
*Antibodies: IM, immunology
Bacteria: EN, enzymology
*Bacteria: IM, immunology
Child
Chromatography
Haemophilus: ME, metabolism
*IgA: CH, chemistry
*IgA, Secretory: CH, chemistry
Immunoblotting
*Immunoglobulins: AN, analysis
Middle Age
*Nasal Mucosa: IM, immunology
Neutralization Tests
Protease Inhibitors: PD, pharmacology
*Serine Endopeptidases: IM, immunology
Streptococcus: ME, metabolism

L18 ANSWER 2 OF 15 MEDLINE
AN 1998395109 MEDLINE
DN 98395109 PubMed ID: 9727006
TI Purification and characterization of wild-type and mutant "classical" nitroreductases of Salmonella typhimurium. L33R mutation greatly diminishes binding of FMN to the nitroreductase of S. typhimurium.
AU Watanabe M; Nishino T; Takio K; Sofuni T; Nohmi T
CS Division of Genetics and Mutagenesis, National Institute of Health Sciences, 1-18-1 Kamiyoga, Setagaya-ku, Tokyo 158-8501, Japan.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Sep 11) 273 (37) 23922-8. Journal code: HIV; 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199810
ED Entered STN: 19981021
Last Updated on STN: 19981021
Entered Medline: 19981013
AB "Classical" nitroreductase of Salmonella typhimurium is a flavoprotein that catalyzes the reduction of nitroaromatics to metabolites that are toxic, mutagenic, or carcinogenic. This enzyme represents a new class of flavin-dependent enzymes, which includes nitroreductases of Enterobacter cloacae and Escherichia coli, flavin oxidoreductase of Vibrio fischeri, and NADH oxidase of Thermus thermophilus. To investigate the structure-function relation of this class of enzymes, the gene encoding a mutant nitroreductase was cloned from S. typhimurium strain TA1538NR, and

the enzymatic properties were compared with those of the wild-type. DNA sequence analysis revealed a T to G mutation in the mutant nitroreductase gene, predicting a replacement of leucine 33 with arginine. In contrast to
the wild-type enzyme, the purified protein with a mutation of leucine 33 to arginine has no detectable nitroreductase activities in the standard **assay** conditions and easily lost FMN by dialysis or ultrafiltration. In the presence of an excess amount of FMN, however, the mutant protein exhibited a weak but measurable enzyme activity, and the substrate specificity was similar to that of the wild-type enzyme. Possible mechanisms by which the mutation greatly diminishes binding of FMN to the nitroreductase are discussed.

CT Check Tags: Comparative Study; Support, Non-U.S. Gov't
Amino Acid Sequence
Base Sequence
Binding Sites
Chromatography
Chromatography, Gel
Chromatography, Ion Exchange
Cloning, Molecular
Durapatite
Enterobacter cloacae: EN, enzymology
Escherichia coli: EN, enzymology
*FMN: ME, metabolism
Haemophilus: EN, enzymology
Kinetics
Molecular Sequence Data
Molecular Weight
Mycoplasma: EN, enzymology
*Nitroreductases: GE, genetics
Nitroreductases: IP, isolation & purification
*Nitroreductases: ME, metabolism
*Point Mutation
*Salmonella typhimurium: EN, enzymology
Salmonella typhimurium: GE, genetics
Sequence Alignment
Sequence Homology, Amino Acid
Thermus thermophilus: EN, enzymology
Vibrio: EN, enzymology

L18 ANSWER 3 OF 15 MEDLINE
AN 95298926 MEDLINE
DN 95298926 PubMed ID: 7779956
TI Evaluation of a commercial system for the identification of gram-negative,
nonfermenting bacteria of veterinary importance.
AU Salmon S A; Watts J L; Walker R D; Yancey R J Jr
CS Animal Health Discovery Research, Upjohn Company, Kalamazoo, MI 49001, USA.
SO JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION, (1995 Jan) 7 (1) 161-4.
Journal code: A2D; 9011490. ISSN: 1040-6387.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199507
ED Entered STN: 19950726

Last Updated on STN: 19950726
Entered Medline: 19950718
CT Check Tags: Animal
*Bacteriological Techniques: VE, veterinary
*Gram-Negative Bacteria: CL, classification
*Gram-Negative Bacteria: IP, isolation & purification
*Gram-Negative Facultatively Anaerobic Rods: CL, classification
*Gram-Negative Facultatively Anaerobic Rods: IP, isolation & purification
Haemophilus
Reagent Strips

L18 ANSWER 4 OF 15 MEDLINE
AN 92112340 MEDLINE
DN 92112340 PubMed ID: 1730505
TI Clustering of an outer membrane adhesin of Haemophilus parainfluenzae.
AU Liljemark W F; Bloomquist C G; Lai C H
CS Department of Diagnostic and Surgical Sciences, School of Dentistry, University of Minnesota, Minneapolis 55455-0329.
NC DE07014 (NIDCR)
R37-DE04614 (NIDCR)
SO INFECTION AND IMMUNITY, (1992 Feb) 60 (2) 687-9.
Journal code: GO7; 0246127. ISSN: 0019-9567.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199202
ED Entered STN: 19920308
Last Updated on STN: 20000303
Entered Medline: 19920218
AB Haemophilus parainfluenzae synthesizes an outer membrane protein adhesin which mediates binding to oral streptococci, salivary pellicle, and neuraminidase-treated erythrocytes. An indirect gold labeling technique and immunoelectron microscopy verified the location of this outer membrane protein. Further, a clustering of gold particles was observed in irregular patches at the cell surface.
CT Check Tags: Support, U.S. Gov't, P.H.S.
*Bacterial Adhesion
*Bacterial Outer Membrane Proteins: AN, analysis
Gold
***Haemophilus: CH, chemistry**

L18 ANSWER 5 OF 15 MEDLINE
AN 91263343 MEDLINE
DN 91263343 PubMed ID: 2048282
TI Improved protection of swine from pleuropneumonia by vaccination with proteinase K-treated outer membrane of Actinobacillus (Haemophilus) pleuropneumoniae.
AU Chiang Y W; Young T F; Rapp-Gabrielson V J; Ross R F
CS Veterinary Medical Research Institute, College of Veterinary Medicine, Iowa State University, Ames 50011.
SO VETERINARY MICROBIOLOGY, (1991 Mar) 27 (1) 49-62.
Journal code: XBW; 7705469. ISSN: 0378-1135.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)

LA English
FS Priority Journals
EM 199107
ED Entered STN: 19910802
Last Updated on STN: 20000303
Entered Medline: 19910718
AB The immunogenic and protective potentials of an outer membrane-enriched fraction (OM) from a serotype 5 strain of Actinobacillus (Haemophilus) pleuropneumoniae (**APP**) and the same OM degraded with proteinase K or periodate were evaluated in swine. Groups of pigs were vaccinated with two doses of OM, proteinase K-treated OM (P-OM), periodate-treated OM (PI-OM), or placebo vaccine and challenged intranasally with the homologous strain of **APP**. Results from triplicate experiments indicated that proteinase K treatment of OM resulted in an improved efficacy. This improved efficacy of P-OM vaccine over untreated OM vaccine was evidenced not only by less severe lung lesions in P-OM vaccinated pigs but also by significant reduction (P less than 0.05) in the number of P-OM vaccinated pigs which developed lung lesions upon challenge with **APP**. Assessment of sera from vaccinated animals by immunoblotting, complement fixation test, or ELISA indicated that the immunogenicity of some but not all protein or carbohydrate components were reduced (or eliminated) by proteinase K and periodate treatments respectively.
CT Check Tags: Animal; Female; Male; Support, Non-U.S. Gov't
*Actinobacillus: IM, immunology
Actinobacillus Infections: PC, prevention & control
*Actinobacillus Infections: VE, veterinary
Antibodies, Bacterial: BI, biosynthesis
Antigens, Bacterial: IM, immunology
Bacterial Outer Membrane Proteins: IM, immunology
Complement Fixation Tests
Electrophoresis, Polyacrylamide Gel
Endopeptidase K
Enzyme-Linked Immunosorbent Assay
Haemophilus: IM, immunology
Haemophilus Infections: PC, prevention & control
Haemophilus Infections: VE, veterinary
Pleuropneumonia: PC, prevention & control
*Pleuropneumonia: VE, veterinary
Random Allocation
Serine Endopeptidases: ME, metabolism
Swine
*Swine Diseases: PC, prevention & control
*Vaccination: VE, veterinary

L18 ANSWER 6 OF 15 MEDLINE
AN 88047453 MEDLINE
DN 88047453 PubMed ID: 3674414
TI Preparation of cell envelopes of large numbers of individual bacterial strains with the use of an automatic cell disruptor.
AU Van Alphen L; Romijn C; Brandt H; Geelen L; Zanen H C
CS Department of Medical Microbiology, Academic Medical Centre, Amsterdam, The Netherlands.
SO ANALYTICAL BIOCHEMISTRY, (1987 Oct) 166 (1) 36-40.

Journal code: 4NK; 0370535. ISSN: 0003-2697.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198711
ED Entered STN: 19900305
Last Updated on STN: 19900305
Entered Medline: 19871124
AB Analysis of the cell envelopes of large numbers of bacterial strains is used for the epidemiological and taxonomic investigation of clinical, veterinarian, and ecological isolates. Isolation of cell envelopes requires lysis of the bacteria. We developed an **apparatus** to disrupt bacterial cells of 200 different isolates in suspension by ultrasonication automatically. It is composed of modified standard laboratory equipment (fraction collector, cooling unit, pump), a standard ultrasonifier, and a newly designed control unit, which includes a sampler. This **apparatus** was applied to the analysis of cell envelope proteins of 96 Haemophilus influenzae strains on sodium dodecyl sulfate-polyacrylamide gel electrophoresis within 3 days after the first culture.
CT *Bacterial Outer Membrane Proteins: AN, analysis
Chemistry, Analytical: IS, instrumentation
Electrophoresis, Polyacrylamide Gel
Haemophilus: AN, analysis

L18 ANSWER 7 OF 15 MEDLINE
AN 87132255 MEDLINE
DN 87132255 PubMed ID: 3493113
TI Rapid determination of X/V growth requirements of Haemophilus species in broth.
AU Inzana T J; Clarridge J; Williams R P
NC AI07145 (NIAID)
SO DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE, (1987 Feb) 6 (2) 93-100.

Journal code: DMI; 8305899. ISSN: 0732-8893.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198704
ED Entered STN: 19900303
Last Updated on STN: 19970203
Entered Medline: 19870423
AB A broth system was developed for rapid identification of the requirement for X factor (hemin), or V factor (NAD), or both for growth of Haemophilus species. This system was compared to growth around paper discs/ **strips** impregnated with factors X and/or V. The broth system consisted of three tubes, each containing brain-heart infusion broth supplemented with V factor, X factor, or both. Each tube was inoculated with a saline suspension of an Haemophilus isolate, and the broths were shaken for aeration at 37 degrees C. Under these conditions turbidity or clumping was usually evident after 4-5 hr only in the broth(s) containing the required supplement(s). A few strains requiring only V factor required overnight incubation. One hundred fifty-six Haemophilus isolates were

tested for growth around supplemented discs/**strips** or in supplemented broths: 129 were H. influenzae/aegypticus, 25 were of various species that required only V factor, and 2 were H. aphrophilus. Ten of 89 H. influenzae isolates from the respiratory tract were misidentified by satellitism. All isolates were correctly identified by growth in supplemented broths. The cost of the broth assay was about 60 cents/test, whereas the satellite assay cost about 120 cents/test. Serotyping and antibiotic sensitivity testing could be performed directly from the broth culture. Determination of X and/or V requirement by Haemophilus species with supplemented broths was sensitive, rapid, and inexpensive.

CT Check Tags: Animal; Comparative Study; Human; Support, U.S. Gov't, P.H.S.
Blood: MI, microbiology
Cerebrospinal Fluid: MI, microbiology
Costs and Cost Analysis
Culture Media
Ear: MI, microbiology
Eye: MI, microbiology
***Haemophilus: GD, growth & development**
Haemophilus: IP, isolation & purification
*Haemophilus influenzae: GD, growth & development
Haemophilus influenzae: IP, isolation & purification
*Heme: AA, analogs & derivatives
*Hemin: PD, pharmacology
Kinetics
*NAD: PD, pharmacology
Respiratory System: MI, microbiology

L18 ANSWER 8 OF 15 MEDLINE
AN 86168818 MEDLINE
DN 86168818 PubMed ID: 3514664
TI Comparison of a new commercially prepared porphyrin test and the conventional satellite test for the identification of Haemophilus species that require the X factor.
AU Gadberry J L; Amos M A
SO JOURNAL OF CLINICAL MICROBIOLOGY, (1986 Mar) 23 (3) 637-9.
Journal code: HSH; 7505564. ISSN: 0095-1137.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198605
ED Entered STN: 19900321
Last Updated on STN: 19900321
Entered Medline: 19860514
AB A test with a commercially developed porphyrin test agar was examined for the identification of Haemophilus spp. The porphyrin test agar method was compared with the conventional paper **strip** satellite method in tests with 187 isolates and was found to be easier to perform and interpret, giving a sensitivity of 98.7% and specificity of 94.7%.
CT Check Tags: Comparative Study
Agar
*Bacteriological Techniques
Culture Media
***Haemophilus: CL, classification**
Haemophilus: GD, growth & development
Haemophilus: ME, metabolism

*Heme: AA, analogs & derivatives
*Hemin: PD, pharmacology
*Porphyrins: BI, biosynthesis

L18 ANSWER 9 OF 15 MEDLINE
AN 85073854 MEDLINE
DN 85073854 PubMed ID: 6509390
TI Porcine haemophili and actinobacilli: characterization by means of API test **strips** and possible taxonomic implications.
AU O'Reilly T; Rosendal S; Niven D F
SO CANADIAN JOURNAL OF MICROBIOLOGY, (1984 Oct) 30 (10) 1229-38.
Journal code: CJ3; 0372707. ISSN: 0008-4166.
CY Canada
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198502
ED Entered STN: 19900320
Last Updated on STN: 19900320
Entered Medline: 19850221
AB Thirty Haemophilus strains and six Actinobacillus strains, all of porcine origin, were examined for their biochemical reactivity on API 20E and API ZYM test **strips** using dense cell suspensions (supplemented with NAD as appropriate) as **strip** inocula. When combined with a test for V-factor dependency, the use of both **strips** allowed adequate differentiation of closely related organisms. Numerical taxonomic analysis of the data demonstrated that the majority of the haemophili and actinobacilli studied could be placed in one of four major clusters; these clusters contained, respectively, the H. pleuropneumoniae--A. pleuropneumoniae strains, the H. parasuis strains, strains belonging to Haemophilus taxon "minor group," and strains belonging to an unusual group of mannitol-positive, urease-negative haemophili. A representative of Haemophilus species taxon C and an unusual Actinobacillus isolate appeared to be comparatively unrelated to organisms in the four major clusters. Although it may, on occasion, be difficult to place an unusual isolate in any one particular group, owing to the uncertain taxonomy of some of these organisms, it is concluded that API test **strips** can serve as useful tools for the characterization and differentiation of porcine haemophili and actinobacilli.
CT Check Tags: Animal; Support, Non-U.S. Gov't
*Actinobacillus: CL, classification
Actinobacillus: EN, enzymology
***Haemophilus: CL, classification**
Haemophilus: EN, enzymology
*Indicators and Reagents
***Reagent Strips**
*Swine: MI, microbiology

L18 ANSWER 10 OF 15 MEDLINE
AN 84207971 MEDLINE
DN 84207971 PubMed ID: 6373253
TI A modified method for differentiation of Haemophilus influenzae from

Haemophilus parainfluenzae.
AU Santanam P
SO EUROPEAN JOURNAL OF CLINICAL MICROBIOLOGY, (1984 Apr) 3 (2) 150-1.
Journal code: EMY; 8219582. ISSN: 0722-2211.
CY GERMANY, WEST: Germany, Federal Republic of
DT Letter
LA English
FS Priority Journals
EM 198407
ED Entered STN: 19900320
Last Updated on STN: 19900320
Entered Medline: 19840716
CT *Bacteriological Techniques
***Haemophilus: IP, isolation & purification**
*Haemophilus influenzae: IP, isolation & purification
*Indicators and Reagents
***Reagent Strips**

L18 ANSWER 11 OF 15 MEDLINE
AN 83298942 MEDLINE
DN 83298942 PubMed ID: 6412201
TI An easily prepared and accurate test **strip** for the detection of beta-lactamase production by both gram negative and positive organisms.
AU Mugg P A
SO PATHOLOGY, (1983 Apr) 15 (2) 175-6.
Journal code: OTA; 0175411. ISSN: 0031-3025.
CY Australia
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198310
ED Entered STN: 19900319
Last Updated on STN: 19900319
Entered Medline: 19831021
AB A simple method is described for the preparation of a paper test **strip** for the rapid detection of the beta-lactamase enzymes of Haemophilus sp., N. gonorrhoeae, S. aureus and S. epidermidis. The test **strips** were compared with the chromogenic cephalosporin technique for beta-lactamase detection and found to give 100% agreement. The beta-lactamase detection **strips** were easily prepared, very inexpensive, required no special equipment and could be stored for up to 6 mth.
CT **Haemophilus: EN, enzymology**
*Indicators and Reagents
Neisseria gonorrhoeae: EN, enzymology
***Reagent Strips**
Staphylococcus: EN, enzymology
Staphylococcus aureus: EN, enzymology
*beta-Lactamases: AN, analysis

L18 ANSWER 12 OF 15 MEDLINE
AN 83109707 MEDLINE
DN 83109707 PubMed ID: 6337192
TI Biotyping of Haemophilus using API 10S--an epidemiological tool?.
AU Mehtar S; Afshar S A
SO JOURNAL OF CLINICAL PATHOLOGY, (1983 Jan) 36 (1) 96-9.

Journal code: HT3; 0376601. ISSN: 0021-9746.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 198303
ED Entered STN: 19900318
Last Updated on STN: 19900318
Entered Medline: 19830311
CT Check Tags: Comparative Study; Human
Adolescence
Adult
Age Factors
Bacteriological Techniques
Child
Child, Preschool
***Haemophilus: CL, classification**
Haemophilus: IP, isolation & purification
Haemophilus: ME, metabolism
Haemophilus Infections: MI, microbiology
Haemophilus influenzae: CL, classification
Haemophilus influenzae: IP, isolation & purification
Haemophilus influenzae: ME, metabolism
*Indicators and Reagents
***Reagent Strips**

L18 ANSWER 13 OF 15 MEDLINE
AN 82167977 MEDLINE
DN 82167977 PubMed ID: 7040443
TI Evaluation of the rapid penicillinase paper **strip** test for detection of beta-lactamase.
AU Oberhofer T R; Towle D W
SO JOURNAL OF CLINICAL MICROBIOLOGY, (1982 Feb) 15 (2) 196-9.
Journal code: HSH; 7505564. ISSN: 0095-1137.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198206
ED Entered STN: 19900317
Last Updated on STN: 19900317
Entered Medline: 19820621
AB The penicillin-starch paper **strip** method was compared with the acidometric and iodometric methods for assaying beta-lactamase production, using fresh isolates of clinically important bacteria. Results obtained by the three methods were compared for rapidity, accuracy, and stability of reagents. Of the 210 isolates tested by the paper **strip** method, 301 isolates tested by the acidometric method, and 117 isolates tested by the iodometric method, all were in perfect agreement with the disk diffusion susceptibility test except one strain each of Haemophilus influenzae, Staphylococcus aureus, and Staphylococcus epidermidis. The H. influenzae isolate was penicillin resistant and failed to give a positive test for beta-lactamase in all three tests. The staphylococci (intermediate and resistant in susceptibility, respectively) failed to give a positive test for beta-lactamase with the iodometric method. The

results of the paper **strip** method, in which 3,241 strains representing nine species of bacteria were used, correlated completely with disk susceptibility tests except for 2 and 69 strains, respectively, of penicillin-resistant, beta-lactamase-negative H. influenzae and H. parainfluenzae. The results of this study indicate that the paper **strip** method is accurate, simple to perform, extremely economical, and uses materials that are stable when stored frozen. It is eminently suitable for routine laboratory use.

CT Check Tags: Human; Support, Non-U.S. Gov't
*Bacteria: EN, enzymology
*Bacteriological Techniques
Haemophilus: EN, enzymology
Penicillinase: AN, analysis
Reagent Strips
Staphylococcus: EN, enzymology
*beta-Lactamases: AN, analysis

L18 ANSWER 14 OF 15 MEDLINE
AN 77238680 MEDLINE
DN 77238680 PubMed ID: 888594
TI [Polyacrylamid-gel-electrophoresis of Haemophilus proteins (author's transl)].
Elektrophoretische Auftrennung von Haemophilus-Proteinen im Polyacrylamid-Gel.
AU Neumann U; Hinz K H
SO ZENTRALBLATT FUR BAKTERIOLOGIE, PARASITENKUNDE, INFEKTIONSKRANKHEITEN UND HYGIENE. ERSTE ABTEILUNG ORIGINALE. REIHE A: MEDIZINISCHE MIKROBIOLOGIE UND PARASITOLOGIE, (1977 Jun) 238 (2) 244-50.
Journal code: Y52; 0331570. ISSN: 0300-9688.
CY GERMANY, WEST: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA German
FS Priority Journals
EM 197709
ED Entered STN: 19900314
Last Updated on STN: 19900314
Entered Medline: 19770922
AB After phenol-acetic-acid extraction the following Haemophilus strains resp. their proteins were subjected the polyacrylamid-gel-electrophoresis in presence of 8 M urea: Strains of the serovar A of H. paragallinarum: 0083, 1516, 1598, 2213, 1645, 1646, Lohren, 2671, 1385, 758, 17756; strains of serovar B of H. paragallinarum: 0222, 2600, 733, 2028, 1596, 2026, 1676, 245, the S and R-form of 2403 as well as the strains 782 and 1655, which were not serotyped; strains of H. paravium sp. nova (HINZ: Inst. J. Syst. Bacteriol. in press): 1762, 62 (Serovar 1), 2654, 2659 (Serovar 2), 780 (Serovar 3), 94 (Serovar 4) and 1254, 0002, 0003, which were not serotyped. H. parainfluenzae (NCTC 4101) and H. parasuis were examined in the same way. The Coomassie Blue-stained protein patterns show
that each of the strains tested developed its characteristic protein pattern, with exception of the S- and R-form of the strain 2403, which developed identical pattern. Interrelations between electrophoretic pattern and biological properties such as biochemical activities or pathogenicity could not be proved. However, the procedure described seems to be suitable for strain- or clon-identification on the subspecies level.
The electrophoresis **apparatus**, which was made according to our

instructions was less expensive than corresponding available equipments and proved to be usable for the polyacrylamid-gel-electrophoresis.

CT *Bacterial Proteins: AN, analysis
*Electrophoresis, Polyacrylamide Gel
***Haemophilus: AN, analysis**
Haemophilus: CL, classification
Species Specificity

L18 ANSWER 15 OF 15 MEDLINE
AN 77110823 MEDLINE
DN 77110823 PubMed ID: 827984
TI [Qualitative and quantitative researches into bacterial flora of respiratory **apparatus** (author's transl)].
Indagini qualitative e quantitative sulla flora batterica dell'apparato respiratorio.
AU Torelli P C; Tortoli E
SO ANNALI SCLAVO, (1976 Mar-Apr) 18 (2) 198-206.
Journal code: 65C; 2985177R. ISSN: 0003-472X.
CY Italy
DT Journal; Article; (JOURNAL ARTICLE)
LA Italian
FS Priority Journals
EM 197703
ED Entered STN: 19900313
Last Updated on STN: 19900313
Entered Medline: 19770331
AB The first group of data illustrated in this research concern the isolation's frequencies of bacterial strains from 7000 samples of respiratory materials examinated in two years, 1973 and 1974, by two different techniques. Significant differences were observed in the isolation's percentage of various bacterial strains; these differences, at least partly, can be attributed at the different techniques employed in two years. The second group of data is represented by results of bacterial quantitation performed in 100 samples of purulent sputum, with respectives clinical notes unknown. Potentially pathogenous strains in pure culture and at a concentration of 10(7) or higher were isolated only in 16 samples of sputum in the other samples normal bacterial flora was isolated alone or associated with potentially pathogenous strains.
CT Check Tags: Human
Candida albicans: IP, isolation & purification
Escherichia coli: IP, isolation & purification
Haemophilus: IP, isolation & purification
Klebsiella: IP, isolation & purification
Neisseria: IP, isolation & purification
Pseudomonas aeruginosa: IP, isolation & purification
*Respiratory System: MI, microbiology
*Sputum: MI, microbiology
Staphylococcus: IP, isolation & purification

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     (FILE 'HOME' ENTERED AT 07:38:54 ON 09 AUG 2001)

     FILE 'BIOSIS' ENTERED AT 07:39:14 ON 09 AUG 2001
L1           533 S ICT
L2           307 S IMMUNOCHROMATOGRA?
L3            31 S L1 AND L2
L4           809 S L1 OR L2
L5         18324 S HAEMOPHILUS OR H INFLUENZ?
L6             1 S L5 AND L4
L7          3855 S (POLYSACCHARIDE# OR CARBOHYDRATE#) (4A) ANTIGEN#
L8        487656 S ANTIBOD?
L9          1745 S L7 AND L8
L10            0 S L9 AND L4
L11            1 S L7 AND L4
L12        50774 S L8 (5A) ANTIGEN#
L13           18 S L12 AND L4
L14        36386 S STRIP? OR TESTSTRIP
L15            4 S L13 AND L14
L16          597 S ALL 1

=> d all l6;d all l11;d bib ab it l15 1-4


L6   ANSWER 1 OF 1  BIOSIS  COPYRIGHT 2001 BIOSIS
AN   2001:351661  BIOSIS
DN   PREV200100351661
TI   Laboratory diagnosis of ocular adenovirus infection: Is there really one
     best test.
AU   Kowalski, R. P. (1); Suzow, J. (1); Karenchak, L. M. (1); Romanowski, E.
     G. (1); Weck, K. E. (1); Gordon, Y. J. (1)
CS   (1) Charles T. Campbell Ophthalmic Lab and Dept of Molecular Diagnostics,
     Univ of Pittsburgh Med Ctr, Pittsburgh, PA USA
SO   IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S579. print.
     Meeting Info.: Annual Meeting of the Association for Research in Vision
     and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001
DT   Conference
LA   English
SL   English
CC   Virology - Animal Host Viruses  *33506
     General Biology - Symposia, Transactions and Proceedings of Conferences,
     Congresses, Review Annuals  *00520
     Biochemical Studies - Nucleic Acids, Purines and Pyrimidines  *10062
     Sense Organs, Associated Structures and Functions - Physiology and
     Biochemistry  *20004
     Sense Organs, Associated Structures and Functions - Pathology  *20006
     Physiology and Biochemistry of Bacteria  *31000
     Medical and Clinical Microbiology - Virology  *36006
BC   Adenoviridae   02601
     Herpesviridae   02612
     Pasteurellaceae   06703
     Chlamydiaceae   07121
     Micrococcaceae   07702
IT   Major Concepts
        Infection; Methods and Techniques; Sense Organs (Sensory Reception)
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IT Parts, Structures, & Systems of Organisms
eye: sensory system
IT Diseases
ocular adenovirus infection: eye disease, laboratory diagnosis, viral disease
IT Chemicals & Biochemicals
DNA: adenoviral
IT Methods & Equipment
PCR [polymerase chain reaction]: DNA amplification, genetic method, in-situ recombinant gene expression detection, laboratory method, sensitivity, sequencing techniques, specificity; enzyme immunoassay [Adenoclone]: enzymatic method, laboratory method, sensitivity, specificity; **immunochromatography** [AdenoTest]: laboratory method, sensitivity, specificity; shell vial culture: culture method, laboratory method, sensitivity, specificity
IT Miscellaneous Descriptors
processing time; Meeting Abstract
ORGN Super Taxa
Adenoviridae: Animal Viruses, Viruses, Microorganisms; Animalia; Chlamydiaceae: Chlamydiales, Rickettsias and Chlamydias, Eubacteria, Bacteria, Microorganisms; Herpesviridae: Animal Viruses, Viruses, Microorganisms; Micrococcaceae: Gram-Positive Cocci, Eubacteria, Bacteria, Microorganisms; Pasteurellaceae: Facultatively Anaerobic Gram-Negative Rods, Eubacteria, Bacteria, Microorganisms
ORGN Organism Name
Chlamydia (Chlamydiaceae); HSV [Herpes Simplex Virus] (Herpesviridae); **Haemophilus** (Pasteurellaceae); S. aureus [Staphylococcus aureus] (Micrococcaceae); St. pneumo [Staphylococcus pneumoniae] (Micrococcaceae); adenovirus (Adenoviridae): pathogen; animal (Animalia): host
ORGN Organism Superterms
Animal Viruses; Animals; Bacteria; Eubacteria; Microorganisms; Viruses

L11 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2001:133082 BIOSIS
DN PREV200100133082
TI Detection of Streptococcus pneumoniae antigen by a rapid **immunochromatographic** assay in urine samples.
AU Dominguez, Jose (1); Gali, Nuria; Blanco, Silvia; Pedroso, Pablo; Prat, Cristina; Matas, Lurdes; Ausina, Vicente
CS (1) Servei de Microbiologia, Hospital Universitari Germans Trias i Pujol, Carretera del Canyet s/n, 08916, Badalona, Catalonia: jadoming@ns.hugtip.scs.es Spain
SO Chest, (January, 2001) Vol. 119, No. 1, pp. 243-249. print.
ISSN: 0012-3692.
DT Article
LA English
SL English
AB Study objectives: Evaluation of a newly available rapid (15 min) **immunochromatographic** membrane test (**ICT**) to detect Streptococcus pneumoniae in urine samples, in order to assess its utility in the diagnosis of bacteremic and nonbacteremic pneumococcal pneumonia. Design: Retrospective study. Setting: We studied urine samples from 51 patients with bacteremic and nonbacteremic pneumonia due to S pneumoniae

diagnosed by blood culture and pneumococcal **polysaccharide** capsular **antigen** detection by counterimmunoelectrophoresis in urine samples, 16 patients with probable pneumococcal pneumonia, 71 patients with nonpneumococcal pneumonia, and 16 patients with pneumonia but no pathogen identified. Urine samples were collected and frozen at -20degreeC until used. The **ICT** test was performed following the instructions of the manufacturer. Measurements and results: S pneumoniae antigen was detected in 41 of 51 patients with pneumococcal pneumonia (80.4%); results were positive in 23 of 28 bacteremic cases (82.1%) and in 18 of 23 nonbacteremic cases (78.3%). From patients with a diagnosis of presumptive pneumococcal pneumonia, antigen was detected in seven urine samples (43.7%) and also in one case of the 16 patients with pneumonia but no pathogen identified. The specificity of the **ICT** test was 97.2%. Conclusion: The **ICT** assay is a valuable tool for the diagnosis of pneumococcal pneumonia, especially for the nonbacteremic cases.

CC Respiratory System - Pathology *16006
Clinical Biochemistry; General Methods and Applications *10006
Physiology and Biochemistry of Bacteria *31000
Medical and Clinical Microbiology - Bacteriology *36002

BC Gram-Positive Cocci 07700

IT Major Concepts
Clinical Chemistry (Allied Medical Sciences); Infection; Pulmonary Medicine (Human Medicine, Medical Sciences)

IT Diseases
non-pneumococcal pneumonia: respiratory system disease; pneumococcal pneumonia: bacterial disease, respiratory system disease

IT Chemicals & Biochemicals
Streptococcus pneumoniae antigen

IT Alternate Indexing
Pneumonia, Pneumococcal (MeSH)

IT Methods & Equipment
immunochromatographic membrane test: detection method, serodiagnostic method

ORGN Super Taxa
Gram-Positive Cocci: Eubacteria, Bacteria, Microorganisms; Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
Streptococcus pneumoniae (Gram-Positive Cocci): pathogen; human (Hominidae): patient

ORGN Organism Superterms
Animals; Bacteria; Chordates; Eubacteria; Humans; Mammals; Microorganisms; Primates; Vertebrates

L15 ANSWER 1 OF 4 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:497615 BIOSIS
DN PREV200000497736
TI Development of rapid one-step **immunochromatographic** assay.
AU Paek, Se-Hwan (1); Lee, Seung-Hwa; Cho, Joung-Hwan; Kim, Young-Sang
CS (1) Graduate School of Biotechnology, Korea University, 5-ka, Anam-dong, Sungbuk-ku, Seoul, 136-701 South Korea
SO Methods (Orlando), (September, 2000) Vol. 22, No. 1, pp. 53-60. print.

ISSN: 1046-2023.
DT Article
LA English
SL English
AB An analytical system for a one-step immunoassay has been constructed using the concept of **immunochromatography**. The system employed two different antibodies that bound distinct epitopes of an analyte molecule: an antibody labeled with a signal generator (e.g., colloidal gold), which was placed in the dry state at a predetermined site on a glass-fiber membrane, and another antibody immobilized on the surface of a nitrocellulose membrane. Three membranes, one with the tracer, one with immobilized antibody, and a cellulose membrane as the absorbent of medium (in a sequence from the bottom), were attached to a plastic film and cut into **strips**. Aqueous medium containing analyte absorbed from the bottom end of the immunostrip dissolved the labeled **antibody**, and the **antigen-antibody** binding complex formed was transported into the next nitrocellulose membrane by the flow caused by capillary action. The complex subsequently reacted with the immobilized antibody, which generated a signal in proportion to the analyte concentration. The convective mass transfer of the immunoreactant to the binding partner allowed the assay to be performed with no handling of reagents. The reaction, however, was carried out under nonequilibrium conditions, which resulted in decreased sensitivity as compared with assays performed in an equilibrium mode (e.g., ELISA). To minimize such sacrifice, major factors that control system performance were identified and the system was then devised under optimal conditions.
IT Major Concepts
Methods and Techniques
IT Chemicals & Biochemicals
antibodies
IT Methods & Equipment
ELISA: analytical method, detection/labeling techniques; **immunochromatography**: analytical method, chromatographic techniques; nitrocellulose membrane: Millipore, equipment

L15 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1998:367509 BIOSIS
DN PREV199800367509
TI Rapid accurate field diagnosis of Indian visceral leishmaniasis.
AU Sundar, Shyam; Reed, Steven G.; Singh, Vijay P.; Kumar, Prasanna C. K.; Murray, Henry W. (1)
CS (1) Box 130, 535 E. 68th St., New York, NY 10021 USA
SO Lancet (North American Edition), (Feb. 21, 1998) Vol. 351, No. 9102, pp. 563-565.
ISSN: 0099-5355.
DT Article
LA English
AB Background: A firm diagnosis of visceral leishmaniasis (kala-azar) requires demonstration of the parasite in organ aspirates or tissue biopsy samples. The aim of this prospective study was to assess the diagnostic usefulness of non-invasive testing for **antibody** to the leishmanial **antigen** K39 by means of antigen-impregnated nitrocellulose paper **strips** adapted for use under field conditions. Methods: One drop of peripheral blood is applied to the nitrocellulose **strip**, Three drops of test buffer

(phosphate-buffered saline plus bovine serum albumin) are added to the dried blood. The development of two visible bands indicates presence of IgG anti-K39. 323 consecutive patients with suspected kala-azar referred to two specialist units in India, and 25 healthy controls, provided fingerstick blood samples for the test. Spleen aspirates were taken from 250 patients. Findings: Kala-azar was confirmed by microscopy of spleen-aspirate smears in 127 patients. The K39 **strip** test was positive in all 127; the estimated sensitivity was therefore 100% (95% CI 98-100). Four patients had positive **strip** tests but negative aspirate smears; all four responded to treatment for leishmaniasis. 217 individuals, including the 25 healthy controls, 73 patients with malaria or tuberculosis, and 119 spleen-aspirate-negative patients who had presumed malaria or cirrhosis (79) or no final diagnosis (40), had negative **strip**-test results. None of the 119 aspirate-negative patients developed evidence of kala-azar during 3-6 months of follow-up. The estimated specificity of the **strip** test was 98% (95-100; 217/221). Interpretation: Detection of anti-K39 by **immunochromatographic strip** testing is a rapid and non-invasive method of diagnosing kala-azar, which has good sensitivity and specificity and is well suited for use in field conditions.

IT Major Concepts
Clinical Immunology (Human Medicine, Medical Sciences); Methods and Techniques; Parasitology

IT Diseases
visceral leishmaniasis [kala-azar]: integumentary system disease, parasitic disease

IT Chemicals & Biochemicals
immunoglobulin G; recombinant K39 antigen

IT Methods & Equipment
anti-K39 antigen detection: diagnostic method, immunological method; **immunochromatographic strip** test: diagnostic method, field method, rapid, immunological method

GT India (Oriental region)

ORGN Super Taxa
Flagellata: Protozoa, Invertebrata, Animalia; Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGN Organism Name
human (Hominidae): parasite host, patient; Leishmania-chagasi (Flagellata): parasite; Leishmania-donovani (Flagellata): parasite; Leishmania-infantum (Flagellata): parasite

ORGN Organism Superterms
Animals; Chordates; Humans; Invertebrates; Mammals; Microorganisms; Primates; Protozoans; Vertebrates

L15 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1996:285319 BIOSIS
DN PREV199699007675
TI Evaluation of **immunochromatographic** assay systems for rapid detection of hepatitis B surface **antigen** and **antibody**, Dainascreen HBsAg and Dainascreen Ausab.
AU Sato, Kumiko; Ichiyama, Satoshi (1); Iinuma, Yoshitsugu; Nada, Toshi; Shimokata, Kaoru; Nakashima, Nobuo
CS (1) Dep. Clin. Lab. Med., Nagoya Univ. Hosp., 65 Tsurumai-cho, Showa-ku, Nagoya 466 Japan
SO Journal of Clinical Microbiology, (1996) Vol. 34, No. 6, pp. 1420-1422. ISSN: 0095-1137.

DT Article
LA English
AB We evaluated two **immunochromatographic** assays (ICAs), Dainascreen HBsAg for detecting human hepatitis B surface antigen (HBsAg) and Dainascreen Ausab for detecting human hepatitis B surface antibody (anti-HBs) in human serum. The ICA systems are composed of a comb-shaped device that contains nitrocellulose **strips** on which complexes of HBsAg and anti-HBs can be visualized. The results can be read within 15 min of incubation. The limit of detection for HBsAg was 3.1 ng/ml, and that for anti-HBs was 42 mIU/ml. Results of HBsAg detection agreed completely with those of conventional enzyme immunoassays (EIAs) and showed a 100% sensitivity (158 of 158 samples) and a 100% specificity (304 of 304 samples). The Dainascreen Ausab detected 184 of the 199 EIA-positive samples (sensitivity, 92.5%) and yielded 6 positive results among the 281 EIA-negative samples (specificity, 97.9%). The ICA systems are rapid and sensitive methods for detecting HBsAg and anti-HBs. They are low-cost systems that need no complex instrumentation for analysis and can be recommended for routine use in clinical microbiology laboratories.
IT Major Concepts
Immune System (Chemical Coordination and Homeostasis); Infection; Pathology; Serology (Allied Medical Sciences)
IT Miscellaneous Descriptors
DIAGNOSTIC METHOD; HUMAN SERUM
ORGN Super Taxa
Hepadnaviridae: Viruses; Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGN Organism Name
Hepadnaviridae (Hepadnaviridae); Hominidae (Hominidae)
ORGN Organism Superterms
animals; chordates; humans; mammals; microorganisms; primates; vertebrates; viruses

L15 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1985:162782 BIOSIS
DN BR29:52778
TI **STRIP** ASSAY FOR QUANTITATION OF **ANTIBODY** TO HEPATITIS B SURFACE **ANTIGEN.**
AU VAN HAMONT J E; VINCENT J W; PAPPAS M G; HAJKOWSKI R; SETTERSTROM J A
CS U.S. ARMY INSTITUTE OF DENTAL RESEARCH, WASHINGTON, D.C.
SO 85TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, LAS VEGAS, NEV., USA, MAR. 3-7, 1985. ABSTR ANNU MEET AM SOC MICROBIOL. (1985) 85 (0), 390.
CODEN: ASMACK. ISSN: 0094-8519.
DT Conference
FS BR; OLD
LA English
IT Miscellaneous Descriptors
ABSTRACT HUMAN MOUSE RADIOIMMUNOASSAY **IMMUNOCHROMATOGRAPHY**

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=> d his

     (FILE 'BIOSIS' ENTERED AT 07:39:14 ON 09 AUG 2001)
               DEL HIS Y

     FILE 'STNGUIDE' ENTERED AT 07:48:38 ON 09 AUG 2001

     FILE 'WPIDS' ENTERED AT 07:54:13 ON 09 AUG 2001
L1           178 S IMMUNOCHROMATOGRA? OR ICT OR IMMUNO CHROMATOGRAP?
L2         17079 S  (CARBOHYDRATE? OR POLYSACCAHARIDE# OR SACCHARIDE#)
L3         28904 S L2 OR POLYSACCHARIDE#
L4           462 S L3 (5A) ANTIGEN#
L5             2 S L4 AND L1

=> d .wp 1-2

L5   ANSWER 1 OF 2  WPIDS COPYRIGHT 2001   DERWENT INFORMATION LTD
AN   2000-283451 [24]   WPIDS
DNC  C2000-085570
TI   Obtaining cell wall C-polysaccharide antigens
     containing not more than 10% protein from the bacterium Streptococcus
     pneumoniae for the production of antigen-specific antibodies.
DC   B04 D16
IN   FENT, M K; KOULCHIN, V A; MOLOKOVA, E V; MOORE, N J
PA   (BINA-N) BINAX INC
CYC  36
PI   WO 2000016803 A1 20000330 (200024)* EN   38p
        RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
         W: AT AU CA CH CN CZ DE DK ES FI GB HU IL IN JP KR LU MX NO NZ PL PT
            RU SE SK UA ZA
     AU 9961513    A  20000410 (200035)
     EP 1113817    A1 20010711 (200140)  EN
         R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT  WO 2000016803 A1 WO 1999-US21505 19990920; AU 9961513 A AU 1999-61513
     19990920; EP 1113817 A1 EP 1999-948305 19990920, WO 1999-US21505 19990920
FDT  AU 9961513 A Based on WO 200016803; EP 1113817 A1 Based on WO 200016803
PRAI US 1999-397110   19990916; US 1998-156486   19980918
AB   WO 200016803 A UPAB: 20000522
     NOVELTY - Obtaining a cell wall C-polysaccharide antigen
     containing not more than 10% protein from the bacterium Streptococcus
     pneumoniae for the production of antigen-specific antibodies, is new.
          DETAILED DESCRIPTION - Obtaining a cell wall C-polysaccharide
     antigen containing not more than 10% protein from the bacterium
     Streptococcus pneumoniae comprises:
          (a) culturing the bacterium for a time requisite to obtain a sample
     of desired size and harvesting the bacterial cells in the form of a wet
     pellet;
          (b) suspending the wet cell pellet in an alkaline solution and
     mixing;
          (c) adjusting the pH to an acid pH with a strong acid and
     centrifuging;
          (d) separating a supernatant and adjusting its pH to approximate
     neutrality;
          (e) digesting this product with a broad spectrum protease enzyme
```

preparation to destroy residual proteins;
(f) adjusting the pH to the alkaline side with a weakly alkaline aqueous solution;
(g) separating out the essentially protein free **carbohydrate** or **polysaccharide antigen** on a size exclusion column equilibrated with a weakly alkaline solution; and
(h) pooling material eluted in the first peak and adjusting its pH to approximate neutrality.
INDEPENDENT CLAIMS are also included for the following:
(1) a cell wall C-**polysaccharide antigen** obtained from the method above;
(2) a method for purifying raw antibodies to S. pneumoniae comprising:
(a) separating from S. pneumoniae bacteria a cell wall C-**polysaccharide antigen** containing not more than 10% protein;
(b) conjugating the antigen to one end of a two-ended spacer molecule;
(c) coupling the conjugate to an activated chromatographic column;
(d) subjecting the raw antibodies to affinity chromatography on the column from (c) to obtain purified antigen-specific antibodies; and
(e) eluting from the column the purified antigen-specific antibodies;
(3) purified antigen-specific antibodies obtained by (2);
(4) a chromatographic column for affinity purification of raw antibodies to S. pneumoniae having, via a spacer molecule, a coupled purified C-**polysaccharide** cell wall **antigen** of S. pneumoniae containing not more than 10% protein;
(5) a method of assaying for the presence of S. pneumoniae or its cell wall C-**polysaccharide antigen** in a fluid comprising:
(a) extracting from a culture of S. pneumoniae bacteria the cell wall C-**polysaccharide antigen** containing not more than 10% protein;
(b) coupling the antigen to a spacer molecule to form a conjugate;
(c) coupling the conjugate to a chromatographic affinity column;
(d) purifying raw antibodies to S. pneumoniae bacteria with the chromatographic affinity column of (c) to produce purified antigen-specific antibodies; and
(e) using the purified antibodies of (d) to detect the presence/absence of S. pneumoniae or its C-**polysaccharide** cell wall **antigen** in a fluid;
(6) an **immunochromatographic** (**ICT**) assay for the detection of S. pneumoniae bacteria or the C-**polysaccharide** cell wall **antigen** of the bacteria comprising:
(a) contacting a sample of a fluid suspected of containing the bacteria or their antigen with an **ICT** device comprising a strip of a bibulous material comprising:
(i) a first zone in which has been embedded a conjugate of a labeling agent that displays a visible color change upon reaction of antibodies with their corresponding antigenic binding partner and purified **antigen**-specific antibodies to the C-**polysaccharide** cell wall **antigen** of S. pneumoniae, the antibodies having been purified by passage over a chromatographic affinity column to which is

conjugated a purified C-**polysaccharide** cell wall **antigen** of S. pneumoniae containing not more than 10% protein; and

(ii) a second zone having bound the same purified antigen-specific antibodies in unconjugated form, which zone is equipped with a window for viewing color changes;

(b) allowing the sample to flow laterally along the test strip to the first zone;

(c) allowing the sample, together with the conjugate of antigen-specific antibodies and label, to flow laterally along the test strip to the second zone; and

(d) within 15 minutes from the commencement of step (a) observing through the window whether a line of color has appeared in the second zone, indicating the presence in the sample of S. pneumoniae or its cell wall C-polysaccharide antigen; and

(7) an ICT device used in (6).

USE - The method is useful for generating antigens which, when conjugated to a spacer molecule, may be attached to a chromatographic affinity column. The column is then used to purify raw antibodies to Streptococcus pneumoniae. The immunochromatographic assay is used for rapid and reliable diagnosis of pathogenic states caused by S. pneumoniae including pneumonia, bronchitis, otitis media, sinusitis and meningitis.

Dwg.0/4

L5 ANSWER 2 OF 2 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-237549 [20] WPIDS
DNC C2000-072236
TI Obtaining protein-free **carbohydrate** or **polysaccharide antigen** from a bacterium useful for immunological assays for the detection of Legionella caused diseases.
DC B04 D16
IN KOULCHIN, V A; MOLOKOVA, E V; MOORE, N J
PA (BINA-N) BINAX INC
CYC 36
PI WO 2000010584 A1 20000302 (200020)* EN 31p
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AT AU CA CH CN CZ DE DK ES FI GB HU IL IN JP KR LU MX NO NZ PL PT RU SE SK UA ZA
AU 9956933 A 20000314 (200031)
EP 1107773 A1 20010620 (200135) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT WO 2000010584 A1 WO 1999-US19506 19990825; AU 9956933 A AU 1999-56933 19990825; EP 1107773 A1 EP 1999-943941 19990825, WO 1999-US19506 19990825
FDT AU 9956933 A Based on WO 200010584; EP 1107773 A1 Based on WO 200010584
PRAI US 1998-139720 19980825
AB WO 200010584 A UPAB: 20000426
NOVELTY - A method (I) for obtaining a protein free **carbohydrate** or **polysaccharide antigen** from a known Legionella bacterium or serogroup of species, is new.

DETAILED DESCRIPTION - A method (I) for obtaining a protein free **carbohydrate** or **polysaccharide antigen** from a known Legionella bacterium or serogroup of species, is new and comprises:

(1) culturing the bacterium to obtain a sample of desired size and harvesting the bacterial cells in the form of a wet cell pellet;

(2) suspending the wet cell pellet in an alkaline solution and mixing;

(3) adjusting the pH to an acid pH with a strong acid and

centrifuging;

(4) separating the supernatant and adjusting its pH to approximate neutrality;

(5) digesting the product with a broad spectrum protease enzyme preparation to destroy residual proteins;

(6) adjusting the pH to alkaline with a weak alkaline solution; and

(7) pooling material eluted in the first peak and adjusting its pH to approximate neutrality.

INDEPENDENT CLAIMS are also included for the following:

(1) a protein free **carbohydrate** or **polysaccharide antigen** of a bacterium obtained from a known Legionella pneumophila species or serogroup of species using (I);

(2) a method (II) for the purification of raw antibodies to a species or serogroup of a species of Legionella bacteria, comprising:

(a) separating from the same species or serogroup of a species of Legionella bacteria, a protein free **carbohydrate** or **polysaccharide antigen**;

(b) conjugating the antigen to one end of the a two ended spacer molecule to form a conjugate of the protein free antigen with the spacer molecule;

(c) coupling the conjugate to an activated chromatographic column;

(d) subjecting the raw antibodies to affinity chromatography on the column from (c) to obtain purified antigen specific antibodies; and

(e) eluting from the column the purified antigen-specific antibodies;

(3) purified antigen-specific antibodies to a bacterium of at least one species or serogroup of species of L. pneumophila obtained by (II);

(4) a chromatographic column (III) for affinity purification of raw antibodies in method (II);

(5) a method (IV) for assaying for the presence of Legionella bacteria or their antigenic components in a fluid comprising purifying raw antibodies specific to L. pneumophila species and using the purified antibodies of to detect the presence or absence of the corresponding Legionella bacteria or their antigens in a fluid;

(6) a process (V) for detecting the presence of at least one species or serogroup of a species of Legionella bacteria or its antigen in a fluid medium, where the detecting agent is antigen specific Legionella antibodies obtained by (II); and

(7) an **ICT** (**immunochromatographic** test) assay (VI) for the detection of at least one species or serogroup of a species of Legionella bacteria or antigens of the bacteria, comprising:

(a) contacting a sample of a fluid suspected of containing the bacteria or their antigen with an **ICT** device comprising a strip of bibulous material comprising:

(i) a zone with a conjugate of a labelling agent (A) embedded in it, that displays a visible color change upon reaction of antibodies with their corresponding antigenic binding partner and purified antigen-specific conjugated antibodies (B) to the Legionella species to be detected; and

(ii) a second zone having bound the same purified antigen specific antibodies in unconjugated form which is equipped with a window for viewing color changes;

(b) allowing the sample to flow laterally along the test strip to the first zone;

(c) allowing the sample together with the conjugate of affinity purified antibodies and label to flow laterally along the test strip to the second zone and;

(d) within approximately 15 minutes from the commencement of (a), observing through the window whether a line of color has appeared in the second zone thereby indicating the presence in the sample of the Legionella bacteria species or serogroup that is sought to be detected.

USE - The purified antigens are useful for the affinity purification of polyvalent antibodies to corresponding Legionella organisms. The methods are also useful for the detection of Legionella caused diseases such as Legionnaires disease and Pontiac fever in humans and for the detection of environmental sources of Legionella infectious agents.

ADVANTAGE - The ICT has the ability to give a test result within a 15 minute time span for the presence or absence of L. pneumophila serogroup 1 (or its antigen) which results in high specificity and sensitivity. The test can be reliably and quickly conducted to yield a result of high specificity and high sensitivity and this is believed to be due to the strongly reactive nature of the affinity purified antibodies.

Dwg.0/2

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=> d his

     (FILE 'MEDLINE' ENTERED AT 07:58:03 ON 09 AUG 2001)
                DEL HIS Y
                E ANTIGENS, BACTERIAL+NT/CT
L1         68803 S ANTIGENS, BACTERIAL+NT/CT
L2           884 S ICT OR IMMUNOCHROMATOGRA?
L3            19 S L1 AND L2
                E HAEMOPHILUS/CT
                E E3+ALL
L4         15898 S PASTEURELLACEAE+NT/CT
L5             0 S L4 AND L3

=> d .med 1-19 l3
```

includes all Haemophilus species

L3 ANSWER 1 OF 19 MEDLINE
AN 2001382101 MEDLINE
DN 21145371 PubMed ID: 11248521
TI On-site diagnosis of H. pylori infection by urine.
AU Miwa H; Akamatsu S; Tachikawa T; Sogabe T; Ohtaka K; Nagahara A; Sugiyama Y; Sato N
CS Department of Gastroenterology, Juntendo University School of Medicine, 2-1-1 Hongo, Bunkyoku, 113-8421, Tokyo, Japan..
miwahgi@med.juntendo.ac.jp
SO DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE, (2001 Feb) 39 (2) 95-7. Journal code: DMI; 8305899. ISSN: 0732-8893.
CY United States
DT (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200107
ED Entered STN: 20010709
Last Updated on STN: 20010709
Entered Medline: 20010705
AB We have recently developed an on-site diagnostic kit for H. pylori infection using urine (utilizing **immunochromatographic** method employing a nitrocellulose membrane coated by extracted H. pylori antigen). Accordingly, we investigated its usefulness in 155 consecutive dyspeptic patients using the 13C urea breath test as a gold standard and further compared its performance with two commercially available rapid diagnostic kits that use whole blood (Helisal Rapid Blood, and ImmunoCard H. pylori). As the results, the urine based on-site diagnostic kit provided 95.9% sensitivity and 87.9% specificity with 92.9% accuracy, which were comparable or even better than that of both rapid whole blood tests, suggesting its usefulness in screening of H. pylori infection.
CT Check Tags: Human
Antigens, Bacterial: BL, blood
Breath Tests
*Helicobacter Infections: DI, diagnosis
*Helicobacter Infections: MI, microbiology
*Helicobacter pylori: IP, isolation & purification
Reagent Kits, Diagnostic
Sensitivity and Specificity

Urea: ME, metabolism
*Urine: MI, microbiology

L3 ANSWER 2 OF 19 MEDLINE
AN 2001323171 MEDLINE
DN 21137968 PubMed ID: 11238230
TI Early diagnosis of scrub typhus with a rapid flow assay using recombinant major outer membrane protein antigen (r56) of Orientia tsutsugamushi.
AU Ching W M; Rowland D; Zhang Z; Bourgeois A L; Kelly D; Dasch G A; Devine P
L
CS Viral and Ricksettial Diseases Department, Infectious Diseases Directorate, Code 41, Naval Medical Research Center, Bethesda, Maryland, USA.. Chingw@nmrc.navy.mil
SO CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (2001 Mar) 8 (2) 409-14. Journal code: CB7; 9421292. ISSN: 1071-412X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200106
ED Entered STN: 20010611
Last Updated on STN: 20010611
Entered Medline: 20010607
AB The variable 56-kDa major outer membrane protein of Orientia tsutsugamushi is the immunodominant antigen in human scrub typhus infections. We developed a rapid **immunochromatographic** flow assay (RFA) for the detection of immunoglobulin M (IgM) and IgG antibodies to O. tsutsugamushi. The RFA employs a truncated recombinant 56-kDa protein from the Karp strain as the antigen. The performance of the RFA was evaluated with a panel of 321 sera (serial bleedings of 85 individuals suspected of scrub typhus) which were collected in the Pescadore Islands, Taiwan, from 1976 to 1977. Among these 85 individuals, IgM tests were negative for 7 cases by both RFA and indirect fluorescence assay (IFA) using Karp whole-cell antigen. In 29 cases specific responses were detected by the RFA earlier than by IFA, 44 cases had the same detection time, and 5 cases were detected earlier by IFA than by RFA. For IgG responses, 4 individuals were negative with both methods, 37 cases exhibited earlier detection by RFA than IFA, 42 cases were detected at the same time, and 2 cases were detected earlier by IFA than by RFA. The sensitivities of RFA detection of antibody in sera from confirmed cases were 74 and 86% for IgM and IgG, respectively. When IgM and IgG results were combined, the sensitivity was 89%. A panel of 78 individual sera collected from patients with no evidence of scrub typhus was used to evaluate the specificity of the RFA. The specificities of the RFA were 99% for IgM and 97% for IgG. The sensitivities of IFA were 53 and 73% for IgM and IgG, respectively, and were 78% when the results of IgM and IgG were combined. The RFA test was significantly better than the IFA test for the early detection of antibody to scrub typhus in primary infections, while both tests were equally sensitive with reinfected individuals.
CT Check Tags: Human; Support, U.S. Gov't, Non-P.H.S.

Antibody Specificity
Antigens, Bacterial: IM, immunology
*Bacterial Outer Membrane Proteins: IM, immunology
IgG: BL, blood
IgM: BL, blood
*Immunoassay: MT, methods
Immunodominant Epitopes: IM, immunology
Orientia tsutsugamushi: IM, immunology
*Orientia tsutsugamushi: IP, isolation & purification
*Reagent Strips
Recombinant Proteins: IM, immunology
*Scrub Typhus: DI, diagnosis
Sensitivity and Specificity

L3 ANSWER 3 OF 19 MEDLINE
AN 2001318805 MEDLINE
DN 21284474 PubMed ID: 11393288
TI Detection of Legionella pneumophila antigen in urine samples by the BinaxNOW **immunochromatographic** assay and comparison with both Binax Legionella Urinary Enzyme Immunoassay (EIA) and Biotest Legionella Urin Antigen EIA.
AU Helbig J H; Uldum S A; Luck P C; Harrison T G
CS Medical Microbiology and Hygiene Institute, Technical University Dresden, Germany.. Juergen.Helbig@mailbox.tu-dresden.de
SO JOURNAL OF MEDICAL MICROBIOLOGY, (2001 Jun) 50 (6) 509-16.
Journal code: J2N; 0224131. ISSN: 0022-2615.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200106
ED Entered STN: 20010625
Last Updated on STN: 20010625
Entered Medline: 20010621
AB The new BinaxNOW **Immunochromatographic** (**ICT**) Assay for the detection of Legionella pneumophila antigens was used to test 535 urine specimens from patients with and without Legionnaires' disease. The specificity, calculated by testing 112 samples from patients with pneumonia of aetiologies other than Legionella infection, and 167 urine specimens from urinary tract infections, was found to be 97.1% if the manufacturer's guidelines were followed. However, it was determined that the 'false positive' results characterised by very weak bands could be discounted by re-examination of the results at 60 min, yielding a specificity of 100%. With this minor modification of the procedure applied to examination of urine samples from 117 patients with legionellosis confirmed by isolation of L. pneumophila and 70 patients who had seroconverted to L. pneumophila serogroup 1, sensitivity was calculated to be 79.7%. In comparison, the sensitivities of the Binax Urinary Antigen Enzyme Immunoassay (EIA) and Biotest Urin Antigen EIA were estimated to be 79.1 and 83.4%, respectively. Eleven cases (5.9%) were positive by BinaxNOW assay but negative by Binax or Biotest EIA, or both. The sensitivities of all assays increased to c. 94% if only diagnosis of cases confirmed by isolation of serogroup 1 L. pneumophila was considered,

although the sensitivity for infections caused by L. pneumophila serogroup
1 monoclonal antibody (MAb) subgroup Bellingham was significantly lower than for other MAb subgroups. The Biotest EIA recognised 10 (45%) of the 22 cases not caused by L. pneumophila serogroup 1, whereas the two Binax kits detected only three each. The **ICT** assay BinaxNOW can be recommended as a rapid specific test for the diagnosis of Legionnaires' diseases caused by L. pneumophila serogroup 1, although very weak bands should be interpreted cautiously.

CT Check Tags: Comparative Study; Human
Antibodies, Monoclonal: IM, immunology
***Antigens, Bacterial: UR, urine**
Chromatography: MT, methods
False Positive Reactions
*Immunoenzyme Techniques: MT, methods
Legionella pneumophila: CL, classification
*Legionella pneumophila: IM, immunology
Legionella pneumophila: IP, isolation & purification
*Legionnaires' Disease: DI, diagnosis
Legionnaires' Disease: UR, urine
Reagent Kits, Diagnostic
Sensitivity and Specificity
Serotyping
Time Factors

L3 ANSWER 4 OF 19 MEDLINE
AN 2001155887 MEDLINE
DN 21097861 PubMed ID: 11157611
TI Detection of Streptococcus pneumoniae antigen by a rapid **immunochromatographic** assay in urine samples.
CM Comment in: Chest. 2001 Jan;119(1):9-11
AU Dominguez J; Gali N; Blanco S; Pedroso P; Prat C; Matas L; Ausina V
CS Servei de Microbiologia, Hospital Universitari Germans Trias i Pujol, Badalona, Facultat de Medicina de la Universitat Autonoma de Barcelona, Spain.. jadoming@ns.hugtip.scs.es
SO CHEST, (2001 Jan) 119 (1) 243-9.
Journal code: D1C; 0231335. ISSN: 0012-3692.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 200103
ED Entered STN: 20010404
Last Updated on STN: 20010404
Entered Medline: 20010322
AB STUDY OBJECTIVES: Evaluation of a newly available rapid (15 min) **immunochromatographic** membrane test (**ICT**) to detect Streptococcus pneumoniae in urine samples, in order to assess its utility in the diagnosis of bacteremic and nonbacteremic pneumococcal pneumonia. DESIGN: Retrospective study. SETTING: We studied urine samples from 51 patients with bacteremic and nonbacteremic pneumonia due to S pneumoniae diagnosed by blood culture and pneumococcal polysaccharide capsular antigen detection by counterimmunoelectrophoresis in urine samples, 16 patients with probable pneumococcal pneumonia, 71 patients with nonpneumococcal pneumonia, and 16 patients with pneumonia but no pathogen identified. Urine samples were collected and frozen at - 20 degrees C until used. The **ICT** test was performed following the

instructions of the manufacturer. MEASUREMENTS AND RESULTS: S. pneumoniae antigen was detected in 41 of 51 patients with pneumococcal pneumonia (80.4%); results were positive in 23 of 28 bacteremic cases (82.1%) and in 18 of 23 nonbacteremic cases (78.3%). From patients with a diagnosis of presumptive pneumococcal pneumonia, antigen was detected in seven urine samples (43.7%) and also in one case of the 16 patients with pneumonia but no pathogen identified. The specificity of the **ICT** test was 97.2%. CONCLUSION: The **ICT** assay is a valuable tool for the diagnosis of pneumococcal pneumonia, especially for the nonbacteremic cases.

CT Check Tags: Female; Human; Male
Adolescence
Adult
Aged
Aged, 80 and over
Bacteremia: DI, diagnosis
Bacteremia: IM, immunology
Child
Child, Preschool
Middle Age
*Pneumonia, Pneumococcal: DI, diagnosis
Pneumonia, Pneumococcal: IM, immunology
***Polysaccharides, Bacterial: UR, urine**
Predictive Value of Tests

L3 ANSWER 5 OF 19 MEDLINE
AN 2000421114 MEDLINE
DN 20341579 PubMed ID: 10878074
TI Rapid diagnosis of Legionnaires' disease using an **immunochromatographic** assay for Legionella pneumophila serogroup 1 antigen in urine during an outbreak in the Netherlands.
AU Wever P C; Yzerman E P; Kuijper E J; Speelman P; Dankert J
CS Department of Medical Microbiology, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands.. p.c.wever@amc.uva.nl
SO JOURNAL OF CLINICAL MICROBIOLOGY, (2000 Jul) 38 (7) 2738-9.
Journal code: HSH; 7505564. ISSN: 0095-1137.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200009
ED Entered STN: 20000915
Last Updated on STN: 20000915
Entered Medline: 20000901
AB A new **immunochromatographic** assay for rapid qualitative detection of Legionella pneumophila serogroup 1 antigen in urine specimens was used during an outbreak of legionellosis in The Netherlands. The assay seems of the utmost value in providing a rapid diagnosis of Legionnaires' disease in patients with severe community-acquired pneumonia in an outbreak setting.
CT Check Tags: Human
***Antigens, Bacterial: UR, urine**

Chromatography: MT, methods
*Disease Outbreaks
*Immunologic Techniques
Legionella pneumophila: IM, immunology
*Legionella pneumophila: IP, isolation & purification
*Legionnaires' Disease: DI, diagnosis
Legionnaires' Disease: EP, epidemiology
Legionnaires' Disease: MI, microbiology
Netherlands: EP, epidemiology

L3 ANSWER 6 OF 19 MEDLINE
AN 2000153062 MEDLINE
DN 20153062 PubMed ID: 10691203
TI Evaluation of a rapid **immunochromatographic** assay for the detection of Legionella antigen in urine samples.
AU Dominguez J; Gali N; Matas L; Pedroso P; Hernandez A; Padilla E; Ausina V
CS Servicio de Microbiologia, Hospital Universitari Germans Trias i Pujol, Facultad de Medicina de la Universitat Autonoma de Barcelona, Spain.. jadoming@ns.hugtip.scs.es
SO EUROPEAN JOURNAL OF CLINICAL MICROBIOLOGY AND INFECTIOUS DISEASES, (1999 Dec) 18 (12) 896-8.
Journal code: EM5; 8804297. ISSN: 0934-9723.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200003
ED Entered STN: 20000327
Last Updated on STN: 20000327
Entered Medline: 20000314
AB A new **immunochromatographic** membrane assay for detecting Legionella pneumophila serogroup 1 antigen in urine samples (Binax Now Legionella Urinary Antigen Test; Binax, USA) was evaluated. Its sensitivity, specificity and level of agreement with the Binax enzyme immunoassay were compared using nonconcentrated and concentrated urine samples. The overall agreement between the two tests was 98.1%; the specificity of both was 100%. The sensitivity of the **immunochromatographic** assay was 55.5% in nonconcentrated urine and 97.2% in concentrated urine in comparison with the enzyme immunoassay, using concentrated urine as the reference test. This **immunochromatographic** assay screens successfully for Legionella pneumophila serogroup 1 soluble antigen in concentrated urine samples.
CT Check Tags: Female; Human; Male
Adult
Aged
***Antigens, Bacterial: UR, urine**
*Chromatography: MT, methods
Evaluation Studies
Immunoenzyme Techniques
*Immunologic Techniques
Legionella pneumophila: IM, immunology
*Legionella pneumophila: IP, isolation & purification
*Legionnaires' Disease: DI, diagnosis
Legionnaires' Disease: MI, microbiology
Middle Age
Sensitivity and Specificity
*Urine: MI, microbiology

L3 ANSWER 7 OF 19 MEDLINE
AN 2000087388 MEDLINE
DN 20087388 PubMed ID: 10618283
TI Detection of Francisella tularensis in biological specimens using a capture enzyme-linked immunosorbent assay, an **immunochromatographic** handheld assay, and a PCR.
AU Grunow R; Splettstoesser W; McDonald S; Otterbein C; O'Brien T; Morgan C; Aldrich J; Hofer E; Finke E J; Meyer H
CS Institute of Microbiology, Federal Armed Forces Medical Academy, 80937 Munich, Germany.. tb101cn@mail.lrz-muenchen.de
SO CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (2000 Jan) 7 (1) 86-90. Journal code: CB7; 9421292. ISSN: 1071-412X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200003
ED Entered STN: 20000314
Last Updated on STN: 20000314
Entered Medline: 20000302
AB The early detection of Francisella tularensis, the causative agent of tularemia, is important for adequate treatment by antibiotics and the outcome of the disease. Here we describe a new capture enzyme-linked immunosorbent assay (cELISA) based on monoclonal antibodies specific for lipopolysaccharide (LPS) of Francisella tularensis subsp. holarctica and Francisella tularensis subsp. tularensis. No cross-reactivity with Francisella tularensis subsp. novicida, Francisella philomiragia, and a panel of other possibly related bacteria, including Brucella spp., Yersinia spp., Escherichia coli, and Burkholderia spp., was observed. The detection limit of the assay was 10(3) to 10(4) bacteria/ml. This sensitivity was achieved by solubilization of the LPS prior to the cELISA.
In addition, a novel **immunochromatographic** membrane-based handheld assay (HHA) and a PCR, targeting sequences of the 17-kDa protein (TUL4) gene of F. tularensis, were used in this study. Compared to the cELISA, the sensitivity of the HHA was about 100 times lower and that of the PCR was about 10 times higher. All three techniques were successfully applied to detect F. tularensis in tissue samples of European brown hares (Lepus europaeus). Whereas all infected samples were recognized by the cELISA, those with relatively low bacterial load were partially or not detected by PCR and HHA, probably due to inhibitors or lack of sensitivity. In conclusion, the HHA can be used as a very fast and simple approach to perform field diagnosis to obtain a first hint of an infection with F. tularensis, especially in emergent situations. In any suspect case, the diagnosis should be confirmed by more sensitive techniques, such as the cELISA and PCR.
CT Check Tags: Comparative Study
Antibodies, Monoclonal
Blotting, Western
Brucella: IM, immunology
Burkholderia: IM, immunology
Cross Reactions
*Enzyme-Linked Immunosorbent Assay
Enzyme-Linked Immunosorbent Assay: MT, methods

Escherichia coli: IM, immunology
Francisella tularensis: CL, classification
*Francisella tularensis: GE, genetics
*Francisella tularensis: IP, isolation & purification
*Immunologic Tests: MT, methods
***Lipopolysaccharides: IM, immunology**
*Polymerase Chain Reaction
Polymerase Chain Reaction: MT, methods
Sensitivity and Specificity
Yersinia: IM, immunology

L3 ANSWER 8 OF 19 MEDLINE
AN 1999308407 MEDLINE
DN 99308407 PubMed ID: 10383257
TI Rapid **immunochromatographic** assay for diagnosis of tuberculosis: antibodies detected may not be specific.
CM Comment on: J Clin Microbiol. 1998 Nov;36(11):3443
AU Freeman R; Magee J; Barratt A; Wheeler J; Steward M; Lee M; Piggott N
SO JOURNAL OF CLINICAL MICROBIOLOGY, (1999 Jun) 37 (6) 2111-2.
Journal code: HSH; 7505564. ISSN: 0095-1137.
CY United States
DT Commentary
Letter
LA English
FS Priority Journals
EM 199906
ED Entered STN: 19990712
Last Updated on STN: 20000303
Entered Medline: 19990623
CT Check Tags: Human
Antibodies, Monoclonal
Antigens, Bacterial: IM, immunology
Blotting, Western
Molecular Weight
Recombinant Proteins: IM, immunology
*Tuberculosis: DI, diagnosis
Tuberculosis: IM, immunology
Tuberculosis, Pulmonary: DI, diagnosis
Tuberculosis, Pulmonary: IM, immunology

L3 ANSWER 9 OF 19 MEDLINE
AN 1998453872 MEDLINE
DN 98453872 PubMed ID: 9780587
TI Evaluation of **immunochromatography**-based rapid detection kit for fecal Escherichia coli O157.
AU Takeda T; Yamagata K; Yoshida Y; Yoshino K; Nomura T
CS Department of Infectious Diseases Research, National Children's Medical Research Center.
SO KANSENSHOGAKU ZASSHI. JOURNAL OF THE JAPANESE ASSOCIATION FOR INFECTIOUS DISEASES, (1998 Aug) 72 (8) 834-9.
Journal code: IJR; 0236671. ISSN: 0387-5911.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA Japanese
FS Priority Journals
EM 199812
ED Entered STN: 19990115

Last Updated on STN: 19990115
Entered Medline: 19981201

AB "Quix" is an **immunochromatography**-based direct detection kit for the E. coli O157 LPS antigen in the patient's stool. The present study was conducted to evaluate the efficacy of the kit for rapid diagnosis of enterohemorrhagic Escherichia coli (EHEC) O157 infection. Sensitivity of the kit was determined using a pure culture of a clinical isolate of E. coli O157. Analytical sensitivity was found to be 5 x 10(5) CFU/ml. When compared with the culture method using fecal samples of 64 patients and with bloody diarrhea, sensitivity and specificity were 95.0% (19/20) and 86.4% (38/44), respectively, and overall agreement to culture method was 89.1% (57/64). One patient was found positive by culture method while negative in the present method, where the sample contained a low number of the cells less than the detection limit. Four of the six patients with a negative result by culture method and positive in the present method, were confirmed E. coli O157 infection by positive IgM antibody response against the E. coli O157 LPS. The discrepancy between the two methods seemed to be attributable to antibiotic administration. In one patient, Salmonella urbana (O30(1)30(2)) was detected. The O30(1) antigen of this bacterium is well known to be identical to the E. coli O157 antigen. When the present method was compared with an ELISA-based E. coli O157 LPS antigen detection kit, sensitivity and specificity were 100% (11/11) and 82.1% (23/28), and overall agreement to ELISA method was 87.2% (34/39). From these findings, Quix is useful as a rapid diagnostic kit in the primary clinics, outpatient or bedside use. E. coli O157 LPS antigen in patient's fecal samples can be detected in about five minutes with this simple procedure. Early diagnosis using such a simple kit will largely contribute for the early treatment and prevention of severe complications of the E. coli O157 infection.

CT Check Tags: Female; Human; Male
Antigens, Bacterial: AN, analysis
Child
Child, Preschool
Escherichia coli Infections: DI, diagnosis
Escherichia coli O157: IM, immunology
*Escherichia coli O157: IP, isolation & purification
Evaluation Studies
*Feces: MI, microbiology
Reagent Kits, Diagnostic
Sensitivity and Specificity

L3 ANSWER 10 OF 19 MEDLINE
AN 1998193869 MEDLINE
DN 98193869 PubMed ID: 9532690
TI [A comparative study of the information value of the immunofluorescence and **immunochromatographic** identification of Chlamydia trachomatis antigens in smear material from the cervical canal and of the cytological picture of a vaginal discharge in pregnant women]. Sravnitel'noe izuchenie informativnosti immunofliuorestsentnoi i

immunokhromatograficheskoi identifikatsii antigenov Chlamydia trachomatis v soskobnom materiale iz tservikal'nogo kanala i tsitologicheskoi kartiny vaginal'nogo otdeliaemogo u beremennykh.

AU Zul'karneev R Sh; Kalinin Iu T; Afanas'ev S S; Rubal'skii O V; Denisov L A; Vorob'ev A A; Kiselev V I; Afanas'ev D S; Voronin M V; Afanas'ev M S

CS Health Department of the City Administration of Astrakhan, Russia.

SO ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII, (1998 Jan-Feb) (1) 64-7.
Journal code: Y9O; 0415217. ISSN: 0372-9311.

CY RUSSIA: Russian Federation

DT Journal; Article; (JOURNAL ARTICLE)

LA Russian

FS Priority Journals

EM 199806

ED Entered STN: 19980618
Last Updated on STN: 19980618
Entered Medline: 19980608

AB The cytological picture of the vaginal discharge and scrape material, obtained from 30 pregnant women of the control group (not infected with C.trachomatis) and 61 pregnant women with chlamydiosis; of these, in 42 women the comparative identification of chlamydiae by the methods of direct immunofluorescence and **immunochromatography** was carried out. Direct immunofluorescence was carried out with the use of a set of reagents "MicroTrak" (USA) and **immunochromatographic** identification was made with the use of a set of reagents "Clearview Chlamydia" (Britain). The comparison of the results of **immunochromatography** and direct immunofluorescence revealed that the sensitivity of the set "Clearview Chlamydia" was 100.0% in comparison with the data obtained in the examination of women with the use of the set "MicroTrak". The negative results coincided in 90.1% of cases. The common features of the cytological picture of vaginal samples taken from pregnant women were established. The optimum system of the examination of pregnant women suspected for chlamydiosis, as well as for the evaluation of the effectiveness of its treatment, was proposed.

CT Check Tags: Comparative Study; Female; Human
***Antigens, Bacterial: AN, analysis**
*Chlamydia Infections: DI, diagnosis
*Chlamydia trachomatis: IM, immunology
Chromatography
Fluorescent Antibody Technique, Direct
Immunologic Tests
Pregnancy
*Pregnancy Complications, Infectious: DI, diagnosis
Sensitivity and Specificity
Time Factors
*Vaginal Discharge: DI, diagnosis
*Vaginal Smears: MT, methods

L3 ANSWER 11 OF 19 MEDLINE

AN 1998134302 MEDLINE

DN 98134302 PubMed ID: 9474027

TI Development of FlexSure HP--an **immunochromatographic** method to detect antibodies against Helicobacter pylori.

AU Schrier W H; Schoengold R J; Baker J T; Norell J L; Jaseph C L; Okin Y; Doe J Y; Chandler H

CS SmithKline Diagnostics, Inc., Palo Alto, CA 94303, USA.
SO CLINICAL CHEMISTRY, (1998 Feb) 44 (2) 293-8.
Journal code: DBZ; 9421549. ISSN: 0009-9147.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199803
ED Entered STN: 19980326
Last Updated on STN: 19980326
Entered Medline: 19980316
AB We describe a solid-phase **immunochromatographic** serologic test, FlexSure HP, to detect IgG antibodies against Helicobacter pylori. H. pylori colonize the stomach and proximal duodenum, cause ulcer disease and mucosa-associated lymphoid tissue lymphoma, and have a role in the development of other disorders, including gastric adenocarcinoma. FlexSure HP consists of a test strip, conjugate pad, and absorbent pad, in a novel reverse-flow chromatography format. In these studies, FlexSure HP was demonstrated to be specific for IgG antibodies against H. pylori. The reactive cutoff of the test was consistent with [13C]urea breath test and commercially available ELISAs. FlexSure HP had 94% sensitivity, 88% specificity, and 91% accuracy relative to [13C]urea breath test; and 95% sensitivity, 94% specificity, and 95% overall agreement relative to high-molecular-mass cell-associated protein enzyme immunoassay (HM-CAP EIA). FlexSure HP is a simple-to-perform, visually read test requiring no specialized training, equipment, or instrumentation, and yields rapid, accurate, qualitative results.
CT Check Tags: Female; Human; Male
Adult
*Antibodies: BL, blood
Antigens, Bacterial: BL, blood
Antigens, Bacterial: IM, immunology
Breath Tests
Cross Reactions: IM, immunology
*Helicobacter Infections: BL, blood
Helicobacter Infections: IM, immunology
*Helicobacter pylori: IM, immunology
Immunosorbents: ME, metabolism
Middle Age
ROC Curve
Reagent Kits, Diagnostic
Reproducibility of Results
Sensitivity and Specificity
Stomach: MI, microbiology
Urea: AN, analysis

L3 ANSWER 12 OF 19 MEDLINE
AN 96388854 MEDLINE
DN 96388854 PubMed ID: 8796254
TI Clinical evaluation of a rapid **immunochromatographic** assay based on the 38 kDa antigen of Mycobacterium tuberculosis on patients with pulmonary tuberculosis in China.
CM Comment in: Tuber Lung Dis. 1997;78(1):85
AU Cole R A; Lu H M; Shi Y Z; Wang J; De-Hua T; Zhou A T
CS ICT Diagnostics, Sydney, Australia.

SO TUBERCLE AND LUNG DISEASE, (1996 Aug) 77 (4) 363-8.
Journal code: A8C; 9212467. ISSN: 0962-8479.
CY SCOTLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199610
ED Entered STN: 19961106
Last Updated on STN: 19990129
Entered Medline: 19961022
AB SETTING: A rapid membrane-based antibody assay capable of diagnosing pulmonary tuberculosis within 15 min has been developed using the 38 kDa antigen from Mycobacterium tuberculosis. OBJECTIVE: To determine the specificity and sensitivity of this assay and evaluate its usefulness in a clinical setting. DESIGN: Sera from patients with active pulmonary tuberculosis were obtained from three hospitals in China. The control groups consisted of patients who were diagnosed with lung diseases other than tuberculosis and healthy subjects. RESULTS: Antibody was detected in 54 of 61 (89%) sputum positive patients and 67 of 91 (74%) sputum negative patients who had been clinically diagnosed as having active pulmonary tuberculosis. Five out of 56 (9%) patients with respiratory diseases other than tuberculosis and 1 out of 30 (3%) healthy controls had a positive antibody response. The overall specificity of the assay was 93% and the positive predictive value was 95%. We conclude that this assay is rapid, sensitive and specific and will be a valuable aid in the clinical diagnosis of pulmonary tuberculosis.
CT Check Tags: Female; Human; Male
Adult
***Antigens, Bacterial: AN, analysis**
*Immunoassay: MT, methods
Middle Age
*Mycobacterium tuberculosis: IM, immunology
Mycobacterium tuberculosis: IP, isolation & purification
Predictive Value of Tests
Respiratory Tract Diseases: IM, immunology
Sensitivity and Specificity
Sputum: MI, microbiology
Time Factors
*Tuberculosis, Pulmonary: DI, diagnosis
Tuberculosis, Pulmonary: MI, microbiology

L3 ANSWER 13 OF 19 MEDLINE
AN 94154898 MEDLINE
DN 94154898 PubMed ID: 8111517
TI Comparison of an **immunochromatographic** method for rapid identification of group A streptococcal antigen with culture method.
AU Ehrlich T P; Schwartz R H; Wientzen R; Thorne M M
CS Department of Family Practice, Medical College of Virginia, Fairfax Family Practice Center Inc.
SO ARCHIVES OF FAMILY MEDICINE, (1993 Aug) 2 (8) 866-9.
Journal code: BX6; 9300357. ISSN: 1063-3987.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)

LA English
FS Priority Journals
EM 199403
ED Entered STN: 19940406
Last Updated on STN: 19940406
Entered Medline: 19940330
AB OBJECTIVES: To compare the sensitivity and specificity of Concise Strep A (Hybritech, San Diego, Calif), an **immunochromatographic** group A streptococcal rapid antigen detection system, with a two-plate culture method for the diagnosis of streptococcal pharyngitis, and to evaluate the need for routine back-up culture when this rapid test is used. DESIGN: Throat cultures were obtained from 351 children with acute pharyngitis by duplicate rayon-tipped swabs held in parallel and vigorously rubbed against both tonsils and the posterior pharyngeal wall. One swab was tested for group A streptococcal antigen by a registered licensed laboratory technologist in the pediatrician's office. The other swab was streaked over each of two sheep blood agar plates, one of which was enhanced with trimethoprim in combination with sulfamethoxazole. The plain sheep blood agar plate was then incubated in a candle-extinguish jar. The enhanced agar plate was placed in a gas-pack anaerobic jar. Both plates were incubated for up to 48 hours at 35 degrees C. SETTING: A six-person group pediatric practice. PARTICIPANTS: Three hundred fifty-one children. RESULTS: The Concise Strep A antigen detection test produced 129 positive results. Only six of the 129 were not confirmed by culture method. There were four false-negative rapid streptococcal antigen detection test results, all of which were found after a single overnight incubation. The sensitivity for the Concise Strep A test was 96.9% and the specificity was 97.4%. The plain 5% sheep blood agar plate (without trimethoprim and sulfamethoxazole), which was incubated in a candle-extinguish jar, identified 123 (97%) of the 127 positive throat cultures. The second 24-hour incubation and use of trimethoprim and sulfamethoxazole agar were not rewarding for this study. CONCLUSIONS: Concise Strep A, a polyclonal antibody test, in conjunction with a color **immunochromatographic** assay for soluble streptococcal carbohydrate antigen A appears to be accurate, sensitive, and specific when throat swabs are carefully obtained and when qualified, licensed laboratory technologists perform the procedure. Further studies should be done to confirm our findings, especially when nurses or office staff perform the rapid test procedure in the office setting. If our findings are confirmed, the use of back-up cultures for negative rapid test results obtained using Concise Strep A would be unnecessary.
CT Check Tags: Comparative Study; Human; Support, Non-U.S. Gov't
Acute Disease
***Antigens, Bacterial: AN, analysis**
Bacteriological Techniques
Child
Chromatography
False Negative Reactions
Immunoassay
*Pharyngitis: DI, diagnosis
Pharyngitis: MI, microbiology
Pharynx: MI, microbiology

Reagent Kits, Diagnostic
Sensitivity and Specificity
*Streptococcal Infections: DI, diagnosis
Streptococcus pyogenes: IM, immunology
*Streptococcus pyogenes: IP, isolation & purification

L3 ANSWER 14 OF 19 MEDLINE
AN 93036353 MEDLINE
DN 93036353 PubMed ID: 1416045
TI Kinetic chromatographic sequential addition immunoassays using protein A affinity chromatography.
AU Cassidy S A; Janis L J; Regnier F E
CS Department of Chemistry, Purdue University, West Lafayette, Indiana 47907.
NC GM 25431 (NIGMS)
SO ANALYTICAL CHEMISTRY, (1992 Sep 1) 64 (17) 1973-7.
Journal code: 4NR; 0370536. ISSN: 0003-2700.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199210
ED Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921026
AB A new type of chromatographic immunoassay based on sequential addition is described. On a protein A column, the antibody, the sample containing the antigen, and then a known amount of antigen are sequentially injected. This assay is designed to shorten analysis times and reduce complexity of dual-column chromatographic immunoassays, circumvent desorption buffer interferences common to affinity chromatography, and eliminate the need for tagged molecules. This new technique is named kinetic **immunochromatography** sequential addition (KICQA). Because of its kinetic nature, flow rate will have a large effect on KICQA, and the impact of changing flow rate is studied extensively. By use of various amounts of antibody, the dynamic range of KICQA is shown to be selectable over 2.5 orders of magnitude. Finally, KICQA was used to determine transferrin and albumin in human serum. Both analytes show good agreement with their respective reference methods, and an albumin assay was performed in under 1 min.
CT Check Tags: Support, U.S. Gov't, P.H.S.
Antigen-Antibody Complex
*Apoproteins: AN, analysis
*Chromatography, Affinity
*Immunoassay
*Serum Albumin: AN, analysis
***Staphylococcal Protein A: CH, chemistry**
*Transferrin: AN, analysis

L3 ANSWER 15 OF 19 MEDLINE
AN 90028644 MEDLINE
DN 90028644 PubMed ID: 2679905
TI [Monoclonal antibodies cross-reacting with fibroblasts of interstitial connective tissue of the myocardium and cell wall protein antigens of group A Streptococcus].
Monoklonal'nye antitela, perekrestno reagiruiushchie s fibroblastami interstitsial'noi soedinitel'noi tkani miokarda i belkovymi antigenami

kletochnoi stenki streptokokka gruppy A.
AU Abyzov V N; Drobyshevskaia E I; Liampert I M; Borodiiuk N A; Panasiuk A F
SO BIULLETEN EKSPERIMENTALNOI BIOLOGII I MEDITSINY, (1989 Jul) 108 (7) 74-6.
Journal code: A74; 0370627. ISSN: 0365-9615.
CY USSR
DT Journal; Article; (JOURNAL ARTICLE)
LA Russian
FS Priority Journals
EM 198912
ED Entered STN: 19900328
Last Updated on STN: 19900328
Entered Medline: 19891201
AB Monoclonal antibodies (MCA) B6/5 and C5/3 were obtained after immunization
of BALB/c mice with the protein non-type-specific antigens (NTSA) of streptococcal group A cell wall. MCA B6/5 in the indirect immunofluorescence react with human and animal interstitial connective tissue (**ICT**) of the myocardium and human fibroblast culture cells. MCA C5/3 react with the bands of muscle fibers of the myocardium. MCA B6/5 and C5/3 are autoantibodies. It was revealed that these MCA are directed to two streptococcal cross-reacting antigens (CRA). Production of
B6/5 and C5/3, apparently, does not depend on the possibility of some streptococcal antigens to bind fibrinogen. Bound immunoglobulins were not revealed in the **ICT** and in the muscle fibres by the cultivation of the C5/3 monoclone. Firstly it was stated that, MCA B6/5, reacting with
fibroblasts and with streptococcal CRA, are capable to fix in the **ICT** of myocardium, what is typical for the phenomenon described in rheumatic fever.
CT Check Tags: Animal; Human
*Antibodies, Monoclonal: IM, immunology
***Antigens, Bacterial: IM, immunology**
*Autoantibodies: AN, analysis
Cross Reactions
Fibroblasts: IM, immunology
Fluorescent Antibody Technique
Mice
Mice, Inbred BALB C
*Myocardium: IM, immunology
Rheumatic Fever: IM, immunology
*Streptococcus pyogenes: IM, immunology

L3 ANSWER 16 OF 19 MEDLINE
AN 81035609 MEDLINE
DN 81035609 PubMed ID: 6158813
TI [T-proteins of Streptococcus pyogenes. II. Communication: Preparation of specific immunoadsorbents for isolation of anti-T-antibodies and investigations of the T4/24...pattern (author's transl)].
T-Proteine des Streptococcus pyogenes. II. Mitteilung: Praparation spezifischer Immunadsorbentien zur Isolierung von T-Antikorpern und Untersuchungen de T4/24...Agglutinationsgruppe.
AU Schmidt K H; Kuhnemund O; Kohler W
SO ZENTRALBLATT FÜR BAKTERIOLOGIE. 1. ABT. ORIGINALE. A: MEDIZINISCHE MIKROBIOLOGIE, INFEKTIONSKRANKHEITEN UND PARASITIOLOGIE, (1980) 246 (4) 489-98.
Journal code: Y5P; 8005748. ISSN: 0172-5599.

CY GERMANY, WEST: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA German
FS Priority Journals
EM 198012
ED Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19801218
AB The T4-antigen(s) in Streptococcus pyogenes standard type strains of the T4/24...pattern was (were) investigated in regard to the uniformity or diversity of the antigen(s) in this T-complex. Tryptic T-extracts of types 4, 24, 26, 28, 29, 46, 48, 60 were purified by ion exchange chromatography on DEAE-cellulose. Anti-T4-antibodies were isolated by immunoadsorption chromatography on AH-sepharose linked T4-antigen. Purified T4-antigen showed in SDS-electrophoresis a similar multiple molecular size structure as T1-antigen described earlier. Comparative serological studies of T-antigens of types 4, 24, 29 and 46 revealed reactions of identity to anti-T4-antibodies in Ouchterlony tests. Extracts of types 26, 28, 48 and 60 did not precipitate with anti-T4-antibodies, but types 28 and 48 showed crossreaction to the relevant antisera (anti-T28 and anti-T48, resp.) obviously caused by traces of R-28 antigen in both antigen preparations. Strains of the types 4, 24, 29, 46, 48 and 60 were agglutinated by anti-T4-antibodies. The reaction could be inhibited by T4-antigen. The strains of type 26 and 28 used in our experiments did not contain T4-antigen. Agglutination as well as immunoprecipitation reactions with specific antibodies prepared by **immunochromatography** proved the existence of common T4-antigenic determinants in type 4, 24, 29, 46, 48 and 60.
CT Check Tags: Animal
Antibodies, Bacterial: IM, immunology
*Antibodies, Bacterial: IP, isolation & purification
*Antigen-Antibody Complex
***Antigens, Bacterial: IM, immunology**
Antigens, Bacterial: IP, isolation & purification
*Bacterial Proteins: IM, immunology
Epitopes
Immunodiffusion
*Immunosorbents
Rabbits
*Streptococcus pyogenes: IM, immunology

L3 ANSWER 17 OF 19 MEDLINE
AN 80243108 MEDLINE
DN 80243108 PubMed ID: 6994834
TI [Study of cross reactions between group A streptococcal antigens and cardiac interstitial connective tissue fibroblasts of different species of mammals].
Izuchenie perekrestnykh reaktsii mezhdu antigenami streptokokka gruppy A i fibroblastami interstitsial'noi soedinitel'noi tkani serdtsa mlekopitaiushchikh raznykh vidov.
AU Kochetkova E V; Liampert I M; Kolesnikova V Iu; Semenova E N
SO BIULLETEN EKSPERIMENTALNOI BIOLOGII I MEDITSINY, (1980 May) 89 (5) 582-4.

Journal code: A74; 0370627. ISSN: 0365-9615.
CY USSR
DT Journal; Article; (JOURNAL ARTICLE)
LA Russian
FS Priority Journals
EM 198010
ED Entered STN: 19900315
Last Updated on STN: 19900315
Entered Medline: 19801027
AB It has been revealed by indirect immunofluorescence that sera of rabbits immunized with group A streptococcal non-type-specific antigens and F (ab')2 fragments of IgG obtained from these sera intensively react with fibroblasts of interstitial connective tissue (**ICT**) of the myocardium of humans and different mammalian species with the exception of rabbits. Negative or weak reactions with the same sera and F (ab')2 fragments were observed with fibroblasts of **ICT** of nonimmunized rabbits. Myocardial **ICT** of immunized animals showed bound immunoglobulins. This model can be used for making clear the reason for presence in sera of rheumatic patients circulating antibodies only to heterologous but not to homologous **ICT** of the myocardium regardless of the revealing bound immunoglobulins in the **ICT** of these patients.
CT Check Tags: Animal; Comparative Study; Human
Antigens, Bacterial: IM, immunology
Autoantibodies: AN, analysis
Cattle
*Cross Reactions
Fibroblasts: IM, immunology
Fluorescent Antibody Technique
Guinea Pigs
Heart: EM, embryology
Immunoglobulins, Fab: IM, immunology
Myocardium: CY, cytology
*Myocardium: IM, immunology
Rabbits: IM, immunology
Rats
Rheumatic Fever: IM, immunology
Species Specificity
*Streptococcus pyogenes: IM, immunology
Swine: IM, immunology

L3 ANSWER 18 OF 19 MEDLINE
AN 80181173 MEDLINE
DN 80181173 PubMed ID: 6989752
TI Mitogenic and antigenic properties of group A streptococcal M protein preparations.
AU Knoll H; Kuhnemund O; Havlicek J
SO IMMUNOBIOLOGY, (1980 Jan) 156 (4-5) 537-48.
Journal code: GH3; 8002742. ISSN: 0171-2985.
CY GERMANY, WEST: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198007
ED Entered STN: 19900315
Last Updated on STN: 19900315

Entered Medline: 19800728
AB The separation of a mitogenic substance in M protein preparations of Streptococcus pyogenes, type 1 and type 12, is described. The isolation was achieved by gel chromatography on Biogel A 0.5 m, and by **immunochromatography** on immobilized type specific antibodies. In the delayed cutaneous hypersensitivity test the **immunochromatography** purified M 1 protein caused erythema but no unspecific mitogenicity could be found by lymphocyte transformation test. In neutralization experiments the mitogenic activity of M protein preparations was specifically inhibited by anti-erythrogenic toxin antisera.
CT Check Tags: Animal; Human
Adult
Antibody Specificity
***Antigens, Bacterial**
*Bacterial Proteins: IM, immunology
Bacterial Proteins: IP, isolation & purification
Chromatography, Gel
Fractionation
Hydrochloric Acid: IM, immunology
Hypersensitivity, Delayed: IM, immunology
Middle Age
*Mitogens: PD, pharmacology
Neutralization Tests
Precipitation
Rabbits
*Streptococcus pyogenes: IM, immunology

L3 ANSWER 19 OF 19 MEDLINE
AN 80061440 MEDLINE
DN 80061440 PubMed ID: 388938
TI Immunoelectron microscopic localization of T proteins in the cell wall of Streptococcus pyogenes.
AU Wagner B; Schmidt K H; Wagner M
SO ZENTRALBLATT FUR BAKTERIOLOGIE, PARASITENKUNDE, INFEKTIONSKRANKHEITEN UND HYGIENE. ERSTE ABTEILUNG ORIGINALE. REIHE A: MEDIZINISCHE MIKROBIOLOGIE UND PARASITOLOGIE, (1979 Jul) 244 (2-3) 192-201.
Journal code: Y52; 0331570. ISSN: 0300-9688.
CY GERMANY, WEST: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198001
ED Entered STN: 19900315
Last Updated on STN: 19900315
Entered Medline: 19800128
AB T proteins of Streptococcus pyogenes (group A streptococci) were localized by means of **immunochromatographical** isolated anti-T-antibodies. For the electron microscopical detection both the direct and the indirect immunoferritin techniques were used. The arrangement of the ferritin particles showed, that the T proteins are evenly distributed on the whole cell surface. They are immediately bound to the outer layer of the cell wall or to only short filaments. On isolated cell walls the T protein was detected only on the outer surface.
CT Agglutination Tests
Antigens, Bacterial

*Bacterial Proteins
*Cell Wall
*Streptococcus pyogenes: UL, ultrastructure